Summative Evaluation of the Office of Learning Technologies

Final Report

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Executive Summary

The Office of Learning Technologies (OLT) was launched by Human Resources Canada (HRDC) in 1996 as part of an education and training strategy for adult learners. It was established as a contributions program. The original objectives of the OLT have been refocused to address economic changes and at the time of this evaluation the revised objectives of the OLT were:

- To help increase the capacity of Canadians and their community to use learning technologies in order to build a knowledge-based economy and society; and
- To help close the economic and social divide between those who have computer skills and those who do not.

Three funding initiatives have been established under the OLT with specific funding parameters, objectives and target audiences:

- **The Learning Technologies Initiative (LTI)** operated from 1996 to 1999. During those years, LTI objectives evolved but with a focus on testing the effectiveness of learning technologies in a variety of settings and with diverse groups of adult learners.
- **The Community Learning Networks Initiative (CLN)** was established in 1998 to support time-limited (3-year) pilot projects in partnership with community organizations. These projects offered access to a variety of learning resources and assisted communities in establishing their own computer networks.
- **The Learning Technologies for the Workplace Program (LTW)** was established in 2000 and partners with non-profit organizations, industry associations, and educational institutions to provide funds (on a cost-shared basis) to projects that demonstrate the direct application of a learning technology in the workplace. This funding initiative is specifically aimed at small and medium sized enterprises and at disadvantaged workers.

Approach to the Evaluation

Evaluating partnership style programs presents a number of practical challenges. In the case of the OLT, the program's objectives are achieved indirectly through funding projects undertaken by project sponsors and partners. This means that program outcomes, benefits and impacts depend on organizations, groups and individuals that are beyond the direct influence of the program. As a result, in specific instances, final outcomes are not easy to track or measure. Also, program and project outputs/outcomes are highly diverse, end-user populations are highly diverse, and there are no common metrics (such as the number of job placements) on which performance may be quantified.

The evaluation methodology developed for the OLT evaluation recognized these challenges and attempted to address them in a number of ways. For example, the use of multiple lines of evidence was emphasized to allow for findings from one approach to be substantiated/corroborated by findings from other lines of evidence. Also, case studies were used to help illustrate and/or demonstrate program outputs and impacts. The case studies also added concreteness and provided an in-depth understanding of how impacts are actually achieved. The evaluation also included a survey of non-funded projects to provide a reference for the findings on funded projects.

The main components of the evaluation approach included a review of the literature and pertinent documents, a review and analysis of administrative data, case studies, surveys of project sponsors, project partners and non-funded projects, and key informant interviews.

Evaluation Findings

Are the objectives of the OLT still valid and relevant? Information collected from the document review, case studies, key informant interviews and surveys of project sponsors and partners supports the need for a national program that encourages the use of learning technologies to help develop new technical skills and upgrade old skills, particularly in small, isolated communities.

Both the document review and interviews with stakeholders indicated that learning technology and community learning networks provide an important vehicle for implementing widespread learning opportunities. At the same time, however, the general view was that a number of barriers must be overcome (e.g. a lack of awareness/acceptance of learning technologies; a lack of access to infrastructure, technology and funding). Stakeholders indicated that they see the OLT and the federal government as having an important role in facilitating infrastructure, developing and facilitating partnerships, and providing financial assistance and funding.

How important is OLT project funding? Two-thirds (66%) of the projects that applied for but did not receive OLT funding did not proceed. According to non-funded applicants, the major reason that their project did not proceed was the lack of alternative sources of funding.

Only a minority (6%) of the unaccepted projects proceeded in full without OLT funding. Another 28% proceeded in a reduced or substantially reduced form. Most of the projects that proceeded without OLT funding had a narrower scope of reach, mostly targeting the local community, and were less likely to have used/tested or developed a website, the Internet or specialized software. The majority of survey project sponsors (85%) indicated that they would have been unable to deliver the same project scope and activities without OLT funding.

Did OLT contribute to the development and use of learning technologies in Canada in innovative ways? OTL funded projects have used, tested and developed a wide variety of learning technologies, including computer-based training, the Internet, websites and CD-ROMs, to respond to the needs of end-users. Projects adopted innovative

strategies built upon the input/expertise of partners to help tailor the learning technologies to their end-user groups.

Evidence from the case studies, surveys and key informants suggests that the program has also provided access to workplace training through LTW funding and has supported projects aimed at skills upgrading and lifelong learning.

Has OLT developed sustainable partnerships? The OLT has led to the development of partnerships with private sector, community and non-governmental organizations. At least one new partnership was developed by 77% of the surveyed project sponsors, with each sponsor developing (on average) 3 new partnerships. The evidence also suggests that these partnerships will continue in some form after OLT funding support ends. Looking specifically at LTI funded projects, which generally ended by 1999, 73% of the partnerships were reported to have extended beyond the life of the project.

Who was reached by the OLT? OLT was designed to reach adult learners, especially those who were members of designated equity groups (persons in rural/remote areas, women, youth, seniors, visible minorities, persons with disabilities and Aboriginal people).

The evaluation encountered a number of difficulties in trying to identify end-users because the program never required the collection of such data from funded projects. The available evidence indicates that OLT projects had considerable success in reaching most of the designated equity groups. Three exceptions were young mothers, Aboriginal clients and ESP populations.

Are projects created through OLT sustainable? The available evidence from the case studies, surveys and key informants suggests that many OLT projects would either continue in some form after OLT support ends, or produce outputs/products that will be used after funding ends. More than three-quarters (78%) of the surveyed project sponsors felt that their project would continue in some form after the expiration of OLT funding.

Did OLT increase the sharing of knowledge about learning technologies? Project sponsors generally agreed that their interaction with the OLT has increased their knowledge of new approaches in learning technologies (88%), learning technologies information (80%), and trends in the use of learning technologies (59%). For project sponsors and partners, the primary advantage of partnerships was said to be the sharing of knowledge and skills to provide different perspectives and ideas on learning technologies use and development.

Did OLT contribute to improved accessibility to learning technologies? Project sponsors and partners agreed that funded projects have broadened access to learning opportunities (95%) by helping develop the communities' technological infrastructure (66%) and facilitating the development of community expertise in learning technologies (74%).

All initiatives have improved accessibility to learning technologies by partnering with organizations with access to targeted end-users. The CLN initiative has had the strongest relationship to the community as evidenced through significant linkages to *Community Access Program* (CAP) sites. Almost half (44%) of all CLN projects were directly linked, through the project partner or sponsor, to a CAP site. Additionally, by funding

CLN projects facilitated by community colleges or institutes (22%) and non-profit organizations (38%) that serve the community, OLT has further increased accessibility to learning technologies. Although the CLN funded projects have a range of specific objectives, most were aimed at increasing learning skills (23%), reducing barriers (23%), or increasing accessibility to technologies (27%).

The available evidence also indicates that OLT projects benefited end-users. End-user focus groups for three of the four CLN project case studies identified a number of impacts, including reduced social isolation, increased confidence in learning and a reduced aversion to using computers. Also, the survey of project sponsors indicated that OLT projects have helped workers take advantage of technology (82%), facilitated lifelong learning in the community (81%), and helped develop a more skilled workforce (77%).

Is the OLT cost effective? The evaluation was unable to use standard methods in considering cost-effectiveness due to the lack of data. Therefore, the evaluation was limited to reporting on the perceptions of key informants in this area and incrementality in the leveraging of additional funds.

The key informants generally saw the OLT management model as cost effective. In part, it was suggested that this cost-effectiveness comes from the ability to involve other organizations in OLT funded projects and to leverage a significant amount of resources by facilitating cooperation among organizations across the country.

Areas for Improvement

The broad over-reaching objective of the OLT (i.e. to reduce the economic and social divide between those who have computer skills and those who do not) needs to be recast in more realistic terms. The current objective of the OLT needs to be recast to be something that a program with a limited budget can realistically achieve. An example might be to make the objective to improve computer skill sets of end-users and reduce their reluctance/inability to use newer technologies.

Program controls need to be put in place to minimize the risk that funds leveraged by OLT projects are not incremental, and to safeguard against overlap and duplication. Although there is evidence that OLT projects are leveraging additional funds, the current program design does not include safeguards to reduce the risk that leveraged funds are not incremental (i.e., would have been used for similar activities in the absence of the program). Similarly, given that some of the unaccepted projects gained funding from other sources, there is a need for the program to be able to demonstrate that it has safeguards in place to prevent, or at least limit, any overlap or duplication of activities funded by other sources (e.g. by coordinating activities with Non-governmental organizations (NGOs), other levels of government, etc.).

While OLT has been able to reach designated equity groups, certain groups may require additional program effort to be adequately reached. While OLT funded programs have been relatively successful in reaching persons in remote/rural areas, women and seniors, there has been less success in reaching the Aboriginal community, young mothers and ESL populations. Aboriginal groups, especially, may require a targeted initiative to address the multiple issues identified in serving this population.

There is a need for better outcome tracking at the end-user level. There is a need to provide for the tracking of end-users, for example by requiring project participants to register with project staff.

Project sponsors and partners lack experience partnering. Project sponsors often lack required knowledge to develop and mobilize formal partnerships. Lack of knowledge of partnering impacts both the development and maintenance of partnerships and can lead to conflicts during project development. This is particularly problematic for non-profit organizations and community agencies. In general, organizations would like more direction and assistance from the OLT in terms of the development and maintenance of partnerships.

OLT staffing levels and staff turnover have impacted the program. There is a perception that there is insufficient OLT staff to manage current projects. Further, high staff turnover within the OLT has created an impression that staff are not sufficiently familiar with the program or with learning technologies. Generally, project sponsors would like more interaction and direction from OLT staff.

There is a strong perception that OLT should allocate more resources to understanding and disseminating best practices and lessons learned. It is felt that OLT can act as a data warehouse for learning technology information, research and findings from projects. Stakeholders also requested additional opportunities for project sponsor interaction and information sharing between and within project initiatives.

Delays in receiving OLT funding (i.e., from the developmental phase to pilot phase as a result of the application process) resulted in waning project momentum and interest among partners, sometimes resulting in partner drop out. Informants and sponsors suggested that there be a "fast track" procedure for obtaining funding between the developmental and pilot phases, for projects that are already running. The issue of waning partner interest was more salient when community organizations were involved, given the unstable nature of their internal funding and staff resources.

Management Response

Management believes that the summative evaluation has identified the importance of the Office of Learning Technologies (OLT) in supporting the development and upgrading of learning and technical skills through technologies. The evaluation indicated that OLT contributes to the development and use of learning technologies by designated equity groups. It highlighted the singularity of the program in linking learning technologies with non-institutional learning, while maintaining an overall program focus of knowledge and skills enhancement for innovation.

The evaluation also identified challenges facing the program. Among those challenges primarily was the need to recast the broad over-reaching objective of the program (i.e. to reduce the economic and social divide between those who have computer skills and those who do not) in keeping with the program's limited budget.

Management agrees with the need to put in place program controls to minimize the risk that funds leveraged by OLT projects are not incremental, and to safeguard against overlap and duplication of funds. The program is standardizing the practice of requiring potential recipients to confirm other sources of proposed funding prior to approving a contribution. Applicants must provide a statement when completing funding application forms.

It was observed that OLT should attempt to increase its reach of equity groups such as Aboriginal communities, young mothers and English as Second Language populations. This issue is being addressed in the current call for proposals which gives priority to projects focusing on Aboriginal groups. Subsequent calls for proposals will be constructed in a manner to give priority to designated equity groups based on an identified need.

Management agrees with the concern expressed in the report about the need for better outcome tracking at the end-user level. The requirement for end-user data collection will be included in the new Results Based Management Accountability Framework. The program will work in partnership with Evaluation and Data Development (HRDC) and consult both with Treasury Board and stakeholders to ensure that an appropriate framework is put in place.

More support from OLT to sponsors in the area of partnership development was recommended. OLT is planning to organize partnership development sessions for new sponsors. The sessions will cover the issue of partnership development and maintenance with a view to encouraging the establishment of mutually beneficial relationships in pursuing a common goal.

A finding of the evaluation was that staff turnover and staffing levels have impacted the program. In November 2001, the program began a business improvement process to address a number of staff and organizational issues. As a result of that process, additional project officers have been hired and trained. Learning plans and working tools were also created to facilitate their role. The number of files each project officer is responsible for has been reduced by 50-60 percent. Staff turnover is now within acceptable norms.

The dissemination of best practices and lessons learned will be expanded through regional forums and the publication of an annual report reviewing emerging practices. A policy discussion involving experts is also being considered.

Delays in receiving OLT funding (especially in the transition between the developmental and the pilot phase) were identified as problematic for projects and can result in project slowdowns, loss of interest and potential withdrawal of partners. OLT has reviewed and streamlined the evaluation and approval process in place.

Human Resources Development Canada (HRDC) management would like to thank those individuals who participated in the evaluation of the Office of Learning Technologies (OLT).

1. Introduction

The Office of Learning Technologies (OLT) was launched by Human Resources Canada (HRDC) in 1996 as part of an education and training strategy for adult learners. It was established with an annual budget of $6 million. As a contributions program, the OLT encourages and supports initiatives of various public and private sector partners to expand opportunities for innovative learning through learning technologies.

This report presents the results of a summative evaluation of the OLT. Previously, a formative evaluation[1] had been conducted to review the design and implementation of the OLT and to provide information on the program's progress towards achieving its objectives. The purpose of the summative evaluation is to assess whether there is evidence that the objectives of the OLT have been met through projects funded by the program.

This report on the summative evaluation of the OLT is presented in the following sections:

- Chapter 2 presents an overview of the OLT program;
- Chapter 3 highlights the evaluation methodology;
- Chapter 4 examines the relevance of OLT objectives;
- Chapter 5 examines program administration and delivery – including the issues of incrementality and overlap and duplication;
- Chapter 6 examines the OLT's contribution to the long-term development and/or adaptation of learning technologies;
- Chapter 7 examines the OLT's contribution to partnership development;
- Chapter 8 looks at the end-users of the program; and
- Chapter 9 examines the available evidence on program impacts relating to project sustainability, and the impact of the program on project sponsors and partners, end-users, and the community.
- Chapter 10 summarizes the findings of the evaluation and provides conclusions.

[1] Evaluation of the Office of Learning Technologies, Evaluation and Data Development, HRDC.

2. Program Description

The OLT was established in June 1996 as a contributions program with three key objectives:

- To promote the effective use of learning technologies;
- To support assessment, research and testing related to the use of learning technologies; and
- To increase the availability and sharing of knowledge and quality information about learning technologies.

Changes in the Canadian economy, however, suggested the need to refocus the OLT's objectives to better address the needs of Canadians with barriers to the use of learning technologies. Accordingly, the revised objectives of the OLT are:

- To help increase the capacity of Canadians and their community to use learning technologies in order to build a knowledge-based economy and society; and
- To help close the economic and social divide between those who have computer skills and those who do not.

To achieve the OLT's objectives, three funding initiatives were established with specific funding parameters, objectives and target audiences:

- **The Learning Technologies Initiative (LTI)** was initially known as the OLT Contribution Program and operated from 1996 to 1999. During those years, LTI objectives evolved but the primary goal of the initiative remained the support of two-year projects that contributed to an increased understanding and awareness of learning technologies through learning technology assessment and research. To this end, the initiative focused on testing the effectiveness of learning technologies in a variety of settings and with diverse groups of adult learners. In 2000, LTI was replaced by the New Practices in Learning Technologies.
- **The Community Learning Networks Initiative (CLN)** was established in 1998 to support time-limited (3-year) pilot projects in partnership with community organizations. These projects offered access to a variety of learning resources and assisted communities in establishing their own computer networks. CLN community-controlled and Internet-based computer networks were aimed at furthering social and economic development and encouraging lifelong learning. The CLN initiative has provided two types of funding: developmental phase, and pilot project funding. Developmental funding was used to conduct research activities, define the scope and direction of project activities and develop partnerships, methodologies and evaluation mechanisms for the project. Pilot phase activities on all projects were to be completed by March 31, 2002.

- **The Learning Technologies for the Workplace Program (LTW)** was established in 2000 and partners with non-profit organizations, industry associations, and educational institutions to provide funds (on a cost-shared basis) to projects that demonstrate the direct application of a learning technology in the workplace. This funding initiative is specifically aimed at small and medium-sized enterprises and at disadvantaged workers. To be funded through LTW, the project must be sponsored by an incorporated non-profit organization or an organization that is related to the workplace, and one partner must be actively participating in the project.

3. Evaluation Methodology

The summative evaluation of the OLT focuses on assessing whether the program objectives have been met through projects funded by the LTI, CLN, and LTW initiatives. Specifically the evaluation[2] was designed to determine the following:

- If the objectives of the OLT are still valid and relevant,
- How important OLT funding was to the establishment of the projects, and
- The extent to which the OLT contributed to the development and use of learning technologies by reaching target groups, creating partnerships and developing sustainable projects.

Evaluating partnership styled programs designed to achieve their objectives through groups and organizations beyond the direct influence of the program presents a number of practical challenges. In the case of the OLT, the program's objectives are achieved indirectly through funding projects undertaken by project sponsors and partners. The projects and project outputs are highly diverse, and their final outcomes/impacts depend on additional persons, groups and organizations that are also beyond the direct influence of the program. This means, in specific instances, the impacts (e.g. on target groups, partnerships and communities) are not easy to track or measure.

The evaluation methodology developed for the OLT evaluation recognized there challenges and attempted to address them, for example, by:

- Emphasizing the use of multiple lines for all evaluation questions;
- Employing both qualitative and quantitative data collection methods; and
- Making full use of case studies and site visits to provide evidence on project targeting, outputs and the usefulness of project activities and outputs.

The main components of the evaluation approach are presented below.

3.1 Document Review

A document review was conducted to provide a context for the summative evaluation. The document review examined the current state of learning technology theory and practice within and outside Canada. Additionally, the document review addressed key issues and lessons learned from domestic and international learning technology program development, impacts and outcomes of learning technology implementations, and trends in learning technology.

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[2] The Evaluation Matrix is contained in Appendix A.

3.2 Administrative Data Review and Analysis

Data review activities were undertaken with three data files, one for each of the three funding initiatives (LTI, LTW and CLN). The data review of these files included projects that were funded and projects not recommended for funding (i.e., non-funded projects). For the purposes of the evaluation, withdrawn projects were not included in the analysis.

Table 3-1
Number of Reviewed Projects Funded and Unfunded by Initiative

Type of Project	Pilot	Developmental	Total Number of Projects
LTI	N/A	N/A	344
LTW	12	19	31
CLN	69	125	194
Total	81	144	569

Note: "withdrawn" are not included

There was no missing information at the project level. Although there were only a limited number of variables available in each database when the evaluation started, more were added as the evaluation progressed. The lack of a full range of variables for each project (e.g. including users/participants) is not unique to the OLT and has been encountered in the evaluation of many other HRDC programs.

The specific information available for the projects funded by each of the three funding initiatives included project title, location, project sponsor name and address, project start and completion date, project type (pilot or developmental) and status (active completed, withdrawn, non-funded). The amount of funding received by the project from the OLT was also available.

Prior to analysis, data coding was completed for province, organization type (e.g., non-profit organization, university, college, etc.), initiative (CLN, LTI, LTW), and project status (active, completed, closed, and non-funded). All organizations were placed into only one category, regardless of whether there was reason to code them into two or more categories. These additional data elements provided a basis for examining the distribution of funding applications and funding levels.

3.3 Case Studies

Case studies were conducted on ten OLT funded projects. Three case studies were conducted with LTI funded projects, three with LTW funded projects, and four with CLN funded projects. The LTW is the most recently implemented initiative and, therefore, most of the LTW case-study projects were in the early stages of completion. This means that the case study evidence for these projects should be considered preliminary in nature.

The case studies consisted of a one or two day site visit with each of the ten projects. Locations for the site visits included Vancouver, Victoria and Lumby (B.C.), Edmonton (Alta.), Winnipeg (Man.), London, Ottawa and Toronto (Ont.), Montreal (Que.), and Halifax (N.S.).

Site visits assessed a range of different aspects of the OLT program, such as partnerships developed in the course of OLT projects, deliverables/outputs of learning technology projects, sustainability, and lessons learned from the OLT project. During the site visit, the facility was toured and supplementary materials provided by the sponsors were reviewed. At that time, any hardware obtained for the project and any software developed or used for the project, such as CD-ROMs and websites, were observed.

All of the case studies collected information on project targeting and the types of outputs/activities of the project. The case studies also collected information on project impacts and often included structured interviews with project partners.

Each case study also attempted to obtain information directly from end-users through interviews/focus groups. It was difficult to complete this part of the case study because of a lack of tracking end-users at the project level. In the end, however, focus groups (each with nine participants) were arranged with end-users at three of the four CLN case study sites.

- *Vancouver Community Network:* Project to provide Internet tools/access and training at community sites, and targeted on individuals with low income and literacy skills. The end-user focus group was conducted with seniors;

- *Monashee Learning and Training Centre:* Project to establish a hub/centre of service in the remote community of Lumby to facilitate increased access to lifelong learning and to increase the presence of on-line businesses. The end-user focus group was conducted with persons who had taken courses at the Centre; and

- *Creative Retirement Manitoba:* Project aims to provide seniors with necessary government and community information by on-line access, combined with courses and mentoring programs to improve seniors' computer skills. The end-user focus group was conducted with seniors.

An interview guide was developed to use with project sponsors and partners. A site-specific moderator's guide was developed for each case study site in which a focus group was conducted.

Appendix B provides a summary of each of the case studies including the project target population/client group, client needs/project objectives, an assessment of the extent to which client needs/project objectives were met, barriers/factors affecting the achievement of the objectives, and other issues.

3.4 Surveys of Project Sponsors, Project Partners and Non-funded Applicants

Three mail surveys (completed by mail and telephone follow-up) were conducted:

- A project sponsor survey;
- A project partner survey; and
- A non-funded applicant (non-funded projects) survey.

The surveys were designed to collect information on project activities and project partnerships, to determine satisfaction with the application process and OLT information/services, and to assess impacts of each project and the OLT program overall. All instruments were pre-tested and available in both English and French.

All LTI (124), CLN (124) and LTW (25) funded project sponsors were mailed a questionnaire. However, only a sample of the 782 non-funded LTI (717), CLN (59), and LTW (6) applicants were sent a survey for completion. The selected sample of non-funded applicants was comprised of a random sample of the LTI non-funded projects (245), and all non-funded CLN (59) and LTW (6) applicants.

The sample for the project partner survey was obtained by asking funded project sponsors for the names and contact information of up to three of their project partners. Questionnaires completed by funded project sponsors provided the names of 173 project partners, all of which were mailed a project partner survey questionnaire.

Table 3-2 provides a detailed breakdown of the sample of funded project sponsors, partners and non-funded applicants who completed the mailed questionnaire. The final sample of project sponsors had lower proportions of CLN and LTW developmental projects. The final sample of non-funded projects had higher proportions of non-funded CLN and LTI applicants. This was due, in part, to the length of time between the survey and applicant submission of funding applications to the LTI initiative, which operated between 1996 and 1999. The final response rate based on the sample is also included in Table 3-2. The sample was obtained by excluding cases where the organization that applied for or received funding no longer exists, or the contact person and all individuals involved in the application process were no longer at the organization and could not be tracked.

Table 3-2 Survey Target Groups					
		Population	Sample	Number of Completions	Response Rate
Project Sponsors		**283**	**248**	**126**	**51%**
LTI		124	110	62	56%
CLN	Developmental	68	61	20	33%
	Pilot	56	53	30	57%
LTW	Developmental	14	13	5	38%
	Pilot	21	11	9	82%
Project Partners		**173**	**147**	**59**	**40%**
LTI		71	53	19	36%
CLN	Developmental	26	25	13	52%
	Pilot	52	47	14	30%
LTW	Developmental	N/A	N/A	N/A	N/A
	Pilot	24	22	13	59%
Non-Funded Projects		**782**	**207**	**53**	**26%**
CLN		59	47	17	36%
LTI		717	154	34	22%
LTW		6	6	2	33%
TOTAL		**1,238**	**602**	**238**	**40%**

3.5 Key Informant Interviews

To complement the above lines of evidence, structured interviews were conducted with a broad range of key informants, resulting in a total of 17 key informant interviews (Table 3-3).

Table 3-3 Informant Interview Respondents	
Site	**Completed Interviews**
Provincial Government/Public Sector Officials	3
HRDC Regional Staff	2
Community Organizations	3
Partners	3
Educational Institutions	3
External Advisory Network	3
Total	17

The interview guide was developed to address the informant's involvement in and perspectives on the OLT initiatives and issues related to learning technologies. The guide was pre-tested with a community organization representative to ensure that the questions were clear, meaningful, and presented in a logical sequence. Introduction letters were sent to informants prior to the interviews. Interviews were conducted in-person and by telephone in the official language preferred by the interviewee. Thank-you letters were sent to all interviewees after the interview was complete.

3.6 Strengths and Limitations of the Evaluation Approach

The evaluation approach developed for the OLT recognized the range of practical difficulties in evaluating this type of partnership program:

- Program outcomes, benefits and impacts depend on organizations, groups and individuals that are beyond the direct influence of the program. As a result, in individual instances, final outcomes of program funding are not easy to track or measure.
- Program and project outputs/outcomes are highly diverse, end-use populations are also diverse, and there are no major common metrics (such as the number of job placements) on which performance may be quantified.
- Obtaining data on project outputs, outcomes and end-users can be difficult, the available data can be uneven across projects, and key data for evaluation purposes may simply not be collected by project sponsors.
- Program expectations and objectives can be broad and over-reaching.

A number of steps were taken to address these practical difficulties in evaluating the OLT:

- The multiple lines of evidence approach was emphasized to allow for findings from one approach to be substantiated/corroborated by findings from other lines of evidence. In the OLT evaluation, this allows for greater reliance and confidence to be placed in findings, especially those from non-objective sources (e.g. project sponsor survey respondents);
- Case studies that illustrate and/or demonstrate program outputs and impacts are an important line of evidence, especially in the case of partnership styled programs involving varied outputs and a diverse end-user population. The case studies also add concreteness and provide an in-depth understanding/insights of how the impacts are actually achieved. In the OLT evaluation, ten case studies were conducted, with three of them involving focus groups of end-users; and
- The OLT evaluation included a survey of non-funded projects to add an important perspective against which to compare the funded projects.

Although the evaluation approach developed for the OLT recognized and attempted to address the challenges in evaluating this type program, the following limitations should be noted:

- Evidence from the survey of project sponsors can be viewed as non-objective opinions from a group with a vested interest in program continuation. As sponsors are recipients of program funds, the findings from the survey alone must be interpreted with caution. Greater reliance can be placed upon the findings, however, in instances where they are corroborated from other lines of evidence.

- Data on the end-users of project outputs were unavailable as the program never required the collection of such data from the funded projects. End-user data will not be consistently collected until a new RMAF is in place that sets out the expectations and means for collecting the information. In order to partially compensate for the unavailability of end-user data, focus groups were conducted with the end-users for three of the four CLN case studies.

4. Relevance of OLT Objectives

This section examines whether the OLT objectives are still valid and relevant to the current situation by looking at whether there continues to be a need for a national program like the OLT to encourage the use of learning technologies.

Information collected from the document review, case studies, key informant interviews and surveys of project sponsors and partners supports the need for a national program that encourages the use of learning technologies to help develop new technical skills and upgrade old skill – particularly in smaller, isolated communities. The literature[3] indicates that there continues to be a need for citizens to develop new technical skills and up-grade old skills to fully participate in the current economy. Also, technology is changing the way work is performed in broad segments of many traditional industries and creating new industries that require new skills.

In some communities there is sufficient population and institutional density to facilitate innovation.[4] In others, however, the majority of the industrial development has been within narrow parameters such as primary resource extraction or processing sectors. Often single industry communities are remote from other population centres and have not developed the capacity for innovation beyond primary industries.[5] Also, the citizens from single industry communities may not have the necessary technical skills to make a transition to employment in other industries or communities.[6]

Citizens who do not possess the required technical skills increasingly contribute to the Digital Divide.[7] The challenge is to facilitate the development of processes and structures to allow equal access to learning technology for disadvantaged communities and disadvantaged individuals.[8]

The surveys and case studies indicated that barriers contributing to the Digital Divide include a lack of awareness/acceptance of learning technologies and lack of infrastructure, technology and funding. Key informants also cited lack of interest or attitudinal barriers as one of the four main factors contributing to the Digital Divide. Other factors cited by key informants included lack of infrastructure, lack of information sharing and low levels of technical literacy.

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3 Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein.

4 Porter, Michael E. (1990) The Competitive Advantage of Nations. London: Macmillan.

5 Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein

6 Cape Breton County Stakeholders Assembly on the Economy, (1998), Report on Deliberations: Suggested Framework for a Cooperative Action Plan on the Acute Economic Challenges of Cape Breton County.

7 The refers to the economic and social divide between those who have computer skills and those who do not.

8 Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein

A major difficulty for smaller, isolated communities is distance from learning networks, creative initiatives and research. Also, the literature indicates that communities without the means to determine which information infrastructures and technologies are most worthwhile for them may waste a great deal of time, effort and money on less than productive activities and on technical dead-ends.

The literature and stakeholders confirmed that learning technology and community learning networks provide an important vehicle for implementing widespread learning opportunities. The literature also indicates that these learning networks can link local economic development strategies with community learning[9] to facilitate human capital development.[10]

Representatives at the case study sites, the surveyed stakeholders and key informants also see a wide a variety of opportunities for the use of learning technologies in the development of community learning, including the use of learning technologies for the following purposes:

- Employment skills development and re-training;
- Small business education and e-commerce;
- Increased access to workplace training and health and safety training;
- Rural access to life-long learning;
- Teaching ESL and individuals with disabilities; and
- Providing links to community education.

The document review indicates that there are few Canadian programs funding OLT-related activities. The literature review indicated that the OLT is one of only two programs in Canada that links learning technologies with non-institutional learning, such as community or lifelong learning, while maintaining an overall program focus of skills development and training for innovation.[11] The other example of this type of programming is the TeleEducation website in New Brunswick, which provides 50,000 on-line courses.[12]

Although a variety of programs exist at the provincial level to support adult and community learning, those concerned with introducing technologies to facilitate learning are few in number and scope.[13] Within Ontario, for example, funds available for community-based technology initiatives[14] have primarily been aimed at linking community technology with local economic development, rather than with community or lifelong learning. Similarly,

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[9] Gurstein op.cit. http://olt-bta.hrdc.gc.ca/CLN/whatsnew_e.html, Canada.
[10] http://www.worldbank.org/poverty/scapital/index.htm
[11] *Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein.*
[12] http://courses.telecampus.edu/subjects/index.cfm
[13] *Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein.*
[14] http://www.est.gov.on.ca/english/fp/fund_aindex.html

in Quebec, the primary focus for both extended education and technology enabled education has been the Télé-université de l'Université du Québec.[15] However, the Quebec government has not made investments in enabling technologies for lifelong learning.[16]

Stakeholders feel that the OLT should continue to aim at closing the economic and social divide between those who have computer skills and those who do not. A recent study[17] concluded that the Digital Divide in Canada has continued to close between 1996 and 2000. This finding, however, does not fully address the issue that a significant divide still remains in the use and access to information technologies between high and low income groups, between young and old, between urban and rural populations, and between those with higher levels of education compared to those with less education. When high and low income groups are compared, the Digital Divide continues to grow for the lowest income groups, albeit at a slower rate than in 1996.

Project sponsors, project partners and key informants considered the federal government to have an integral and diverse role in promoting learning and skills development using learning technologies. The role of the federal government is seen to include providing information, conducting needs assessment, and supporting research around the issue of the Digital Divide. With respect to specific program or project development, stakeholders considered the federal government to have a key role in:

- Facilitating infrastructure development and access;
- Developing and facilitating partnerships; and
- Providing financial assistance and funding.

Project partners (84%), project sponsors (86%) and non-funded project applicants (76%) strongly agreed that assisting in closing the economic and social divide between people who have computer skills and Internet access and those who do not is an appropriate objective for the OLT.

Key informants also agreed that the OLT should continue to work at closing the Digital Divide, particularly because there is no other federal government initiative or activity to address this issue. Many of the key informants also noted that the Digital Divide should be addressed through collaboration and partnership between all levels of government, community organizations, the educational system and the private sector. OLT was seen to serve in the role of "catalyst" between HRDC, Industry Canada and the provincial governments – through providing information and enhancing capacity to mobilize engagement.

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[15] http://www.teluq.uquebec.ca/webteluq/index.html

[16] *Literature Review: The Use of Learning Technologies in Canada, written for the Summative Evaluation of the Office of Learning Technologies Program, Michael Gurstein*

[17] *The Digital Divide in Canada, George Sciadas, Statistics Canada, Catalogue no. 56F0009XIE, 2002.*

Through continued support of the OLT, stakeholders also feel the federal government has an important role as part of the national skills engagement process in disseminating information on best practices and acting as a data warehouse for learning technologies (i.e. a type of information brokerage role).

5. Program Administration and Delivery

This section examines the administration and delivery of the OLT by examining non-funded projects, the ratio of funded to non-funded projects for the three funding initiatives, awareness of the OLT, and the level of satisfaction with the application process and project administration.

5.1 Non-funded Projects

OLT funding appears to be an important factor in the development of projects aimed at using technology to promote learning, with only 6% of the non-funded projects proceeding in full without OLT funding. The survey of non-funded project applicants indicated that only 6% of the non-funded applicants pursued the full project as outlined in the funding application (as shown in Table 5-1). Another 28% pursued less than the full project, with most of these projects going ahead in a substantially reduced form (i.e. less than 25% of the project that had been outlined on the OLT application). The other 66% of non-funded projects did not proceed at all after being unaccepted for funding by the OLT program.

Table 5-1
Number of Projects that Proceeded Without OLT Funding

Percentage that Proceeded with Project	Non-Funded Project Sponsors (Valid N=53)
Project did not proceed:	66%
Project proceeded as:	34%
25% or less	(19%)
26% to 50%	(6%)
51% to 75%	(2%)
76% to 99%	(1%)
100%	(6%)
Total	100%

Applicants are applying for OLT funding when other sources of funding are not readily available. The major reason given by non-funded applicants for projects not proceeding, entirely or in part, was lack of alternative funding sources. As further indication that other sources of funding were not readily available, most (73%) non-funded applicants would apply again for OLT funding. Only 5% of those who would not apply again to OLT indicated it was because they felt they could obtain funding elsewhere.

Projects that proceeded in the absence of OLT funding obtained alternate funding through donations (22%), internal sources (22%), government (22%), and other sources (34%).

Almost two-thirds of the unsuccessful applicants either did not receive or could not recall the reason for the rejection of their application. The file review conducted for the formative evaluation of the OLT indicated that the main reasons a project would not be recommended were:

- Results are unlikely to have a broad impact;
- Proposal requires significant reworking;
- Sufficient similar activities being supported by OLT;
- Results would add little to the existing knowledge base on LT;
- Project does not represent an innovative use of LT;
- Major portion of project is in purchase of capital expenditures;
- Activities focus primarily on connectivity and communications;
- Activities focus primarily on service delivery or provision of training; or
- Activities focus primarily on transfer of media (e.g. paper to CD).

The survey of the non-funded project applicants indicated that it was common for unsuccessful applicants to indicate they did not receive or could not recall the reason for the rejection of their application (64%). Among the thirty-six percent (36%) that could recall the reason for application rejection, it was common for the project to have not met OLT funding criteria (17%), or to have insufficient partnerships developed (11%).

Looking specifically at the sub-group of non-funded applicants that proceeded with the project in the absence of OLT funding (which accounted for 34% of the non-funded projects), most (72%) could not recall or did not provide a reason for why their application was rejected. Only 6% of the non-funded applicants indicated their project did not fall within the scope of OLT objectives.

For evaluation purposes, the non-funded "active" projects can serve in some respects as an adequate reference against funded projects. The suitability of using the non-funded "active" projects as a reference group was assessed by examining the main objectives of the proposed project as stipulated in the proposal application. The objectives of these projects varied greatly; however, most aimed at providing training or addressing the learning needs of equity groups. Therefore, non-OLT funded projects can serve in some respects as an adequate reference against the funded projects. Although these 18 projects do not provide an ideal comparison or control group, particularly given the relatively few projects that provided data, comparisons are made between the OLT funded projects and the unaccepted projects that proceeded in the absence of OLT funding where appropriate in the remaining sections of the report.

5.2 Projects Funded by Type of Initiative

Among the three funding initiatives, LTW has the highest ratio of accepted applicants. Table 5-2 shows the number of applications submitted to each of the three OLT funding initiatives and the percentage of applications that were funded or failed to receive funding from the initiative. Information from the file review indicates that the LTW funded the highest proportion of applicants. However, it should be noted that this funding initiative had also run for the shortest duration at the time of this evaluation.

Table 5-2
Funded Projects as a Ratio of Total Applicants by Initiative

Initiative	Funded	Non-funded	Total
LTI (N=344)	36%	64%	100%
CLN (N=194)	69%	31%	100%
LTW (N=31)	81%	19%	100%

5.3 Awareness of the OLT Initiative

Project sponsors most often became aware of the OLT program through the OLT website (40%), and project partners usually became aware of the program through the sponsor's funding application (61%). Project sponsors, commonly became aware of the OLT program through the OLT website (40%), national or provincial associations (21%), and OLT staff (15%). One-third (31%) of LTI funded project sponsors were notified by OLT, through email, of the call for proposals. Project partners primarily became aware of the program through the sponsor's funding application (61%).

5.4 Satisfaction with the Application Process and Project Administration

Project sponsors, and those partners involved in the application process, were generally satisfied with the application process, although there was some confusion around the "matching funds" component of the application. Project sponsors and partners generally agreed on the following:

- Program-initiative objectives were clear (82%);
- Eligibility criteria set forth in the application guidelines were clear (77%);
- Proposal assessment process was adequately described (62%); and
- Selection criteria were clear (62%).

At the same time, the case study interviews and key informant interviews suggested that there is an opportunity to improve the application process. For example, the application process was viewed as cumbersome or unclear in some respects, and in need of streamlining. In particular, applicants noted that they were unsure what constituted a

matching fund and felt that contributions in-kind should be permissible as matching funds by the OLT. For some, the inability to utilize contributions in-kind as matching funds had resulted in difficulties obtaining project partners.

In the area of project administration, project sponsors and other stakeholders were most concerned with the time and effort required from project staff to meet the program reporting requirements. Resource allocation requirements for management of the OLT contribution arose as a significant project administration issue among project sponsors and partners. Organizations found that they generally utilized more staff resources to run the project than they had originally anticipated. In some cases, projects required hiring additional staff to meet mandatory OLT reporting requirements. Both key informants and project sponsors commented that the pressure placed on staff resources by the project would dissuade the organization from applying again for OLT funding.

Reporting documents received from project sponsors were not optimally utilized by the OLT. There were significant limitations to the administrative data provided by the OLT: very few variables were captured in the database and no project outcome data was available. While case study interviews indicated that project sponsors had provided significant amounts of information through on-going reporting, little of this information was captured by the administrative data. Further, project sponsors expressed concern that, although OLT was provided with on-going progress reports, they never received feedback on project performance or feedback on project issues raised in the mandatory reports. Project sponsors and partners generally agreed (72%), however, that they were satisfied that OLT staff were prompt in addressing direct questions put forth by means other than mandatory reporting.

Project sponsors and partners indicated that they would have liked more contact with the OLT during project development and roll out. The general view was that project sponsors and partners would have preferred to have more contact with program staff during the early stages of the project. Further, it was noted that there had been a lack of continuity due to staff turnover within OLT.

Some projects experienced difficulties in developing and maintaining partnerships. Project sponsors and key informants noted that some difficulties were experienced in developing and maintaining partnerships. Partnership activities required considerable resources and were particularly challenging for those organizations inexperienced in partnering, (i.e. non-profit and community organizations). Larger organizations or educational institutions noted that community sponsors had little experience in partnering and therefore lacked understanding of what roles and responsibilities each partner should fulfill.

The case studies indicated that organizations with little experience in partnership development and maintenance would have liked additional support from the OLT in partnering. In some cases partners indicated that the guidelines provided by OLT were difficult to follow and required interpretation and clarification by OLT staff. They noted that this created an additional barrier for smaller agencies and less experienced applicants. Similarly, the *Vancouver Community Network* (VCN), which partnered exclusively with non-profit and community agencies, found capacity building was a significant issue in project development. VCN's partners were often unclear on the amount of internal resources

available to commit to the project, and were unable to focus sufficient resources on the project because of other organizational priorities. Key informants echoed the problems identified by project sponsors and the case studies. In addition, key informants indicated that a lack of understanding of OLT goals and objectives was also a barrier to partnership.

5.4.1 Use of OLT Services

Project sponsors found the OLT website and staff to be useful sources of support. Project sponsors commonly accessed the OLT website (84%) and OLT staff (87%) were considered to be useful sources of support. Additional services were accessed to a lesser degree, in part because they were newly offered or offered on a time-limited basis by the OLT. These services included the following:

- OLT published reports/studies (52%);
- The annual meeting of the Advisory Network of Experts and other forums (36%); and
- OLT workshops (34%).

At the same time, the case study interviews with project sponsors and partners indicated that some organizations had not accessed or were unfamiliar with many of the resources available through OLT. This was evidenced by requests for support documents currently in place at OLT such as partnering guidelines.

5.4.2 Views on Cost Effectiveness

The evaluation was unable to use standard methods in considering the cost-effectiveness of the OLT, because the data needed to undertake a standard analysis were not available. Therefore the evaluation was limited to reporting on the perceptions of key informants in this area and the related issue of incrementality in the leveraging of additional funds.

The key informants generally saw the OLT management model as cost effective. When key informants were ask whether the OLT is cost efficient and effective in promoting learning technologies, they indicated that they saw the OLT management model as cost effective, particularly when compared to other programs. In part, it was suggested that this cost-effectiveness comes from the ability to involve other organizations in OLT funded projects and to leverage a significant amount of resources by facilitating cooperation among organizations across the country.

Although there is some evidence that OLT projects leveraged additional funds, it is difficult to determine the extent to which the leveraged funds are incremental. The OLT program requires that OLT funding is matched one-for-one by contributions from project partners. An examination of the case study projects shows that significant resources, either in-kind or financial, were leveraged through the OLT funded projects. Information from 6 case studies (Table 5-3) showed that the actual leveraging was in the order of $1.50 for every $1 of OLT funding.

Table 5-3
Leverage of Resources by OLT Funded Projects Visited in the Case Studies

Case Study Site (Project)	Dollars Leveraged	Source of Contribution	Amount of Contribution	Type of Contribution
L'avenue, Centre Internet Communautaire Montreal, PQ	$1/$1.17	OLT Contribution	$300,000.00	Financial
		Sponsor/Partner Contribution	$350,000.00	Financial
		Total	$650,000.00	
Monashee Learning & Training Centre Lumby, BC	$1/$1.90	OLT Contribution	$260,000.00	Financial
		Sponsor/Partner Contribution	$493,519.00	Financial/ In-kind
		Total	$753,519.00	
Vancouver Community Learning Network Vancouver, BC	$1/$1.24	OLT Contribution	$197,500.00	Financial
		Sponsor/Partner Contribution	$244,200.00	Financial/ In-kind
		Total	$441,700.00	
Teaching Workplace Literacy as a Safety Initiative in the Forest Industry AB Forest Products Assoc. Edmonton, AB	$1/$3.67	OLT Contribution	$150,000.00	Financial
		Sponsor/Partner Contribution	$550,000.00	Financial/ In-kind
		Total	$700,000.00	
Worker Online Re-skilling Office of Partnerships for Advanced Skills Toronto, ON	$1/$1.23	OLT Contribution	$200,000.00	Financial
		Sponsor/Partner Contribution	$245,000.00	Financial/ In-kind
		Total	$445,000.00	
Strategies for Employers: Effective Strategies for Using Technologies in the Workplace Conferences Board of Canada Ottawa, ON	$1/$0.66	OLT Contribution	$257,000.00	Financial
		Sponsor/Partner Contribution	$170,000.00	Financial/ In-kind
		Total	$427,000.00	
Total	$1/$1.50	OLT Contribution	$1,364,500.00	Financial
		Sponsor/Partner Contribution	$2,052,719.00	Financial/ In-kind
		Total	$3,417,219.00	

Note: The data in this table was obtained from estimates of project funding made at the time of application for OLT funding and the figures have not been verified. The estimates represent a small sample of OLT-funded projects and these results cannot be extrapolated to the entire population of projects.

There was considerable variation across the projects, however, as the leveraged amounts varied from $0.66 to $3.67 for every dollar spent by the OLT, as compared to the expectation that OLT dollars will be matched one-for-one. Also, it is not clear to what extent the leveraged funds are incremental.

Program controls need to be put in place to minimize the risk that funds leveraged by OLT projects are not incremental (i.e. would have been used for similar activities in the absence of the program), and to safeguard against overlap and duplication.

Although the program monitors projects on an ongoing basis throughout the project and requires an evaluation to be conducted at the end of the funding period, the project sponsor is not required to attest to the incrementality of the project.

Given that 34% of the non-funded projects proceeded in some form without OLT funding, and that these projects obtained alternative funding through other sources (e.g. donations, governments), it is important for the OLT to have program safeguards in place to prevent, or at least limit, the possibility that the OLT projects would have proceeded in the absence of the program. One method of accomplishing this could be to require the project sponsors to attest that the project is incremental (i.e., would not have gone ahead without OLT funding).

Similarly, given that some of the unaccepted projects gained funding from other sources, it is important for the program to demonstrate that it has safeguards in place to prevent, or at least limit, any overlap or duplication of activities funded by other sources (e.g. by coordinating activities with NGOs, other levels of government, etc.).

6. OLT Contribution to Long-Term Development

This section examines the OLT contribution to the development and/or adoption of learning technologies by examining the scope of OLT funded projects, the development and use of learning technologies, labour market adaptation, and the introduction of learning technologies.

6.1 Scope of OLT Funded Projects

Across Canada, a wide variety of organizations received OLT funding. The OLT has funded projects throughout Canada. Regionally, the rate of acceptance reflects the rate of submission. As shown in Table 6-1, the types of organizations submitting applications and receiving funding from the OLT include educational institutions (39%), professional groups (28%), and non-profit organizations (24%).

Table 6-1
Applications Receiving Funding and Not Receiving Funding by Organization Type

Organization Type	Funded applicants=283	Non-funded applicants=286
Public institutions*	7%	7%
Educational institutions**	39%	44%
Professional groups+	28%	13%
Non-profit organizations++	24%	26%
Private companies	0%	4%
Native Groups***	2%	6%
Total	100%	100%

* Public institutions include libraries, municipal/regional government organizations, and public institutions

** Educational institutions include universities, schools/school boards, and community colleges/technical institutes

\+ Professional groups include professional associations, sector councils and labour union/trade associations

++ Non-profit includes non-profit/volunteer organizations and community centers

*** Includes Bands/First Nations Councils/Associations/Organizations and Native Non-profit Organizations

The diverse range of organizations acting as project sponsors and partners has helped to expand the delivery network of the OLT program. The diverse range of organizations participating in the OLT has helped to expand the delivery network of the OLT because each organizational group has direct or indirect access to different end-user groups. Non-profit organizations and educational institutions (universities or colleges) commonly acted as project sponsors or project partners, and both organizational types have significant access to end-users.

OLT projects have reached a wide variety of settings. OLT projects have reached rural (13%), urban (33%) and combined urban and rural (53%) settings. Additionally, OLT funded projects have promoted learning technologies at local (13%), regional (16%), provincial (32%) and national (39%) levels.

Unaccepted projects that proceeded in the absence of OLT funding projects have a narrower scope of reach, and more often operate at a local (28%) or provincial (33%) level, rather than regionally (11%) or nationally (17%).

Also, OLT projects have targeted the community (41%), workplace (27%), home (23%) and educational institutions (23%). In general, the setting targeted is directly related to the funding initiative objectives. Thus, CLN funded projects primarily targeted the community, LTW projects targeted the workplace, and LTI projects targeted the workplace, the home and educational institutions.

Unaccepted projects that proceeded in the absence of OLT funding focused instead on the community (50%) and on educational institutions (33%), and were less successful in reaching the workplace (17%) and home (5%).

6.2 Development and Use of Technology

The OLT has funded projects to promote learning technologies through development, testing and use of a wide range of technologies. As shown in Table 6-2, projects across all three funding initiatives commonly used the Internet, used/tested/developed a website, and developed specialized software or a CD-ROM. Projects also often used computer-based training as part of project delivery. The case study evidence and the survey of project sponsors also indicated that the OLT has funded projects to promote learning technologies through the development, testing and use of a wide range of technologies.

Table 6-2
Technology Used, Tested and/or Developed by Projects

	LTW	LTI	CLN
Computer based training	79%	86%	80%
Internet	72%	84%	96%
Website	64%	89%	90%
Specialized software	50%	58%	66%
Multimedia	50%	78%	66%
CD-ROM	50%	61%	72%
Intranet	36%	55%	56%
Digitization	29%	60%	48%
Video conferencing	22%	58%	46%

In comparison to funded projects, non-funded projects were less likely to have used/tested/developed:

- A website (67% non-funded compared to 89% funded);
- The Internet (56% non-funded compared to 88% funded); or,
- Specialized software (67% non-funded compared to 75% funded).

6.3 Labour Market Adaptation

The OLT program has helped to improve the ability of Canadians to adapt to the needs of the labour market primarily through the Learning Technologies in the Workplace (LTW) Initiative. The case studies included the following examples of projects assisting employees and employers to meet the needs of the labour market:

- The Alberta Forest Products Association (AFPA)'s *Teaching Literacy as a Safety Initiative in the Forest Industry* project is an LTW project designed to develop a technology enhancing training program to increase access to health and safety programs for the Alberta forest industry workforce. The project targets forestry workers with low literacy skills in remote locations who otherwise would not have accessed health and safety programs delivered through conventional classroom programs. For this project, AFPA partnered with industry, local colleges and a communications company to develop a training CD-ROM for use in the workplace. Although the project is too new to be assessed for impacts, project sponsors and partners maintained that the overall impacts of the project's final deliverable will be experienced immediately (e.g. new safety, literacy and computer skills for employees) and will continue to be realized in the long term.
- The Office of Partnerships for Advanced Skills (OPAS) Worker Online Re-skilling Centre (WORC) is an LTW project to provide *Technology Mediated Learning* (TML) to working adults (especially mid-career, older persons) in need of skills upgrading. Although the project was too new to be assessed for impacts, the sponsor and partners felt that the use of TML in the culture/art sector (their first targeted sector, which includes a large number of small companies) would be effective as a low-cost alternative to on-site training, reach rural and remote groups, and provide opportunities for end-users to develop broader networks.

Key informants suggested some additional examples of OLT funded projects aimed at adapting Canadians to the job market:

- *Telework Program*: A project aimed at using online technology to enhance the technological skills and increase employability of groups like single mothers.
- *Rural Capacity Building Through Organic Agriculture*: A project that worked to increase awareness and use of IT tools and skills by organic farmers in rural areas throughout British Columbia.

- *Industrial Hydraulics E-Learning Program for the Trades*: A project to develop a fully operational e-learning system to deliver a hydraulics learning program in the workplace and at community access points.

A high percentage of LTW project sponsors and partners surveyed agreed that the project they were involved in helped to:

- Stimulate the use/application of technology-based learning in the workplace (100% sponsor; 100% partner);
- Develop a more skilled workforce (100% sponsor; 73% partner);
- Increase employers' abilities to provide technology-based learning activities (90% sponsor; 83% partner).

LTW funded projects achieved these outcomes by using the workplace as the project setting and targeting professional association members (23%), union members (23%), businesses (31%), trades (15%) and persons in remote or rural areas (31%). LTW funded projects commonly had two main objectives, either the delivery of a training program or to increase knowledge or training in a specific field or occupation.

While LTW had the greatest impact on worker's labour market adaptation, LTI and CLN projects reached the workplace (LTI 39%; CLN 18%). They also targeted the unemployed (LTI 8%; CLN 43%), professional association members (LTI 27%; CLN 17%) and union members (LTI 12%; CLN 17%). A significant proportion of LTI and CLN projects also delivered training programs (LTI 36%; CLN 16%).

Retraining and skills upgrading appears to be a side effect of some projects funded under the Community Learning Networks (CLN) Initiative. The case study evidence indicates that both end-users and staff working on the project (for either the project sponsors or the partners) developed new technological skills and abilities as a result of their participation in the OLT funded project. For example:

- End-users of the CLN funded project *Monashee Learning Community Partnership* noted that the program had provided local training opportunities that otherwise would only have been available to those able to travel 45 minutes to Kelowna. The fact that the majority of the courses provided at the center were employment focused was appreciated by end-users; and
- The *Fire Suppression and Flagging* certification programs resulted in two end-users finding employment in these fields. End-users stressed the importance of providing programs aimed at re-training the local work force because of the community's heavy reliance on the forest industry.

6.4 Introduction of Technology

The available evidence suggests that OLT projects increased the introduction of learning technologies, although it is difficult to determine the extent to which this was incremental. To assess whether or not organizations would have been as successful in introducing technology to develop skills in the absence of OLT funding, project sponsors were asked whether their organization would have undertaken the same project without OLT funding. The majority (85%) indicated that they would have been *unable* to deliver the same project scope and activities without OLT funding. About a third (31%) indicated that they would have undertaken a similar but modified project, with a smaller scope, reduced activities and fewer objectives, without OLT funding.

As noted in Section 5.4.2, however, it is difficult to determine precisely to what extent the projects and their results were incremental (i.e. were in addition to what would have occurred without the OLT) because the program does not include safeguards to limit the risk that projects and leveraged funds are not incremental, and to safeguard against overlap and duplication.

7. OLT Contributions to Partnership Development

This section examines the OLT contribution to partnership development including the leveraging of resources through partnerships, the sustainability of partnerships, and barriers to partnerships.

7.1 Partnership Development

The OLT has led to the development of partnerships with private sector, community and non-government organizations. The case study analysis indicated the OLT led to the development of partnerships through the funding of projects. Sponsors of the case study projects also attributed the OLT's success in developing partnerships to the fact that OLT funding emphasized a partnership approach and provided focus and direction to community organizations looking to utilize learning technologies.

The project sponsor survey also supported the conclusions that the OLT has ensured collaboration with a wide range of partners by encouraging strong community participation and partnerships in the projects funded. Sponsors agreed that the OLT funded project had broadened their organizations' network with other organization/agencies both within (85%) and outside (82%) the community (Table 7-1).

Table 7-1
Impact of OLT Funded Project on Organization's Network

The project...	Valid N	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Strongly Agree
Broadened your organization's network with other organizations/ agencies ***within*** the community	110	48%	37%	14%	2%	0%	**85%**
Broadened your organization's network with other organizations/ agencies ***outside*** the community.	106	41%	41%	13%	4%	1%	**82%**

The OLT's success in promoting partnership development was illustrated by the fact that at least one new partnership was developed by 77% of the surveyed project sponsors as a result of participation in the OLT program. Moreover, most sponsors had developed more than one partnership. On average, 3 new partnerships were developed by each partner (as shown in Table 7-2). Project partners came from all sectors including:

- Private sector organizations (33%);
- Community-based organizations (75%); and
- Government organizations (36%).

Table 7-2
Average Number of New Partnerships Developed

Partnerships developed with:	Average	LTI Sponsors (N=44)	CLN Sponsors (N=41)	LTW Sponsors (N=12)
Community based organizations	3	3	3	1
Not-for-Profit organizations	3	3	5	0
Educational institutions (Universities, Colleges, Training Providers)	2	1	4	0
Private sector organizations	1	1	1	0
Industry associations	1	1	1	1
Federal government organizations	1	0	1	0
Provincial government organizations	0	0	0	1
Other	0	1	0	0
Overall Average Number of Partnerships	**3**	**3**	**4**	**3**

The key informants also agreed that the OLT has been successful in bringing together the private sector, communities, non-governmental organizations and the government to partner collaboratively through OLT-funded projects. In part, this success was considered to be due to the fact that OLT provides the "big picture" or direction to community organizations sponsoring projects. The key informants also confirmed that, without access to OLT Pilot funding, many community organizations would not have the resources, either staff or financial, to accurately identify community need and to subsequently translate that need into meaningful programs.

Further evidence of the OLT's emphasis on partnership development was the fact that unsuccessful applicants were often refused funding because they did not meet OLT objectives and they had not developed enough partnerships for the project to proceed.

7.2 Leverage of Resources Through Partnerships

The evidence from the case studies, surveys of project sponsors and partners, and key informant interviews indicated that partnerships for the OLT have leveraged resources in a variety of ways, as discussed below. Comments by project sponsors and partners also suggest that many of the resources leveraged by OLT partnerships were incremental. It is difficult, however, to determine precisely to what extent the leveraged resources were in fact incremental (i.e. would not have occurred without the OLT) because of a lack of program safeguards in this area (as discussed in Section 5.4.2).

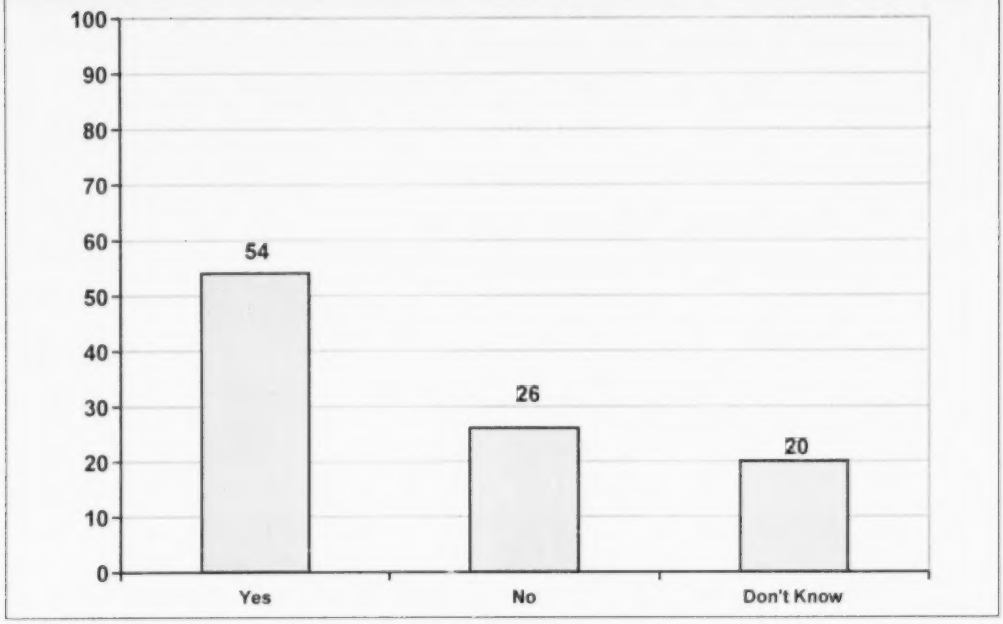
7.2.1 Funding and In-kind Resources

Partnerships for OLT projects have leveraged additional funding and in-kind resources for the project. Contributions by partners have included financial (34%) and technical support (58%). As discussed in Section 5.4.2, the case study analysis indicated that it appears that each dollar of OLT funding leveraged $1.50 from project sponsors/partners (see Table 5-3, in Section 5.4.2).

Also, the case studies and surveys of project sponsors and partners indicated that partnerships have increased project recognition and credibility, often leading to additional partnerships, funding and in-kind resources for the project. For example, partners of the Creative Retirement Manitoba: Senior Learning Network project noted that the profile of the project sponsors, the presence of OLT funding, and the partnerships already in place had encouraged their participation in the Senior Learning Network. Also, partners in the Computer-Based Adult Learning Technologies Project provided a wide variety of expertise, with partnering leading to more partnering.

When the surveyed project sponsors were asked whether or not the funding their organization had received from OLT had encouraged funding participation by other funders, the majority indicated that OLT funding had encouraged funding from other partners (as shown in Graph 7-3).

Figure 7-1
Has the Funding Provided by OLT Encouraged Funding from Other Partners?



Specific technologies provided to the projects through partnerships include access to the Internet (57%), websites (43%), specialized software (43%) and multimedia (33%) (as shown in Table 7-4).

Table 7-3
Technologies Provided by Project Partners

	LTI Project Partner	CLN Project Partner	LTW Project Partner	Total
Internet	54%	58%	57%	57%
Specialized software	45%	42%	43%	43%
Computer based training	54%	15%	71%	43%
Web site	27%	50%	57%	43%
Multimedia	45%	25%	28%	33%
CD-ROM	45%		43%	27%
Specialized devices	27%	17%		17%
Intranet	18%		28%	13%
Video conferencing	18%	17%		13%
Web CT/GIS	27%			10%
Desktop video conferencing	18%	8%		10%
Wireless technology		17%	14%	10%
Digitization	9%	8%		7%
Interactive TV	9%			3%

7.2.2 Content Development

Partnerships leveraged the content development of OLT projects. When describing the main advantages of partnerships, most project sponsors and partners commented that partnerships provided multiple benefits to the projects, including the sharing of knowledge/skills (44%), and the introduction of more ideas or different perspectives (24%) to the content development process.

Table 7-4
Main Advantages of Partnerships

	Total
Sharing of knowledge/skills	44%
Broader target audience	21%
More resources	19%
Different perspectives	16%
Increased project effectiveness in reaching target audience	13%
More ideas	8%
More professional/student participation	6%
More credibility	6%
More funding	4%
Unable to complete project without partner	3%
Increased recognition of project	3%

The surveys of project sponsors and partners also indicated general agreement that project partnerships:

- Supported coordination and information sharing (92%);
- Facilitated content development (78%); and
- Identified or developed best practices (77%).

The case study analysis also provided examples of the leveraging of content development.

- The *Accessible Adult Learning in Health Professions* project, which was developed through the Dalhousie University's Faculty of Health, was able to involve a range of internal partners (e.g. five departments within the Health Professions Faculty, plus several Centers within the university) and external partners (e.g. Workers' Compensation Board of NS) to advance the faculty's commitment to providing distance health education and increasing program access for those in rural and remote communities.
- The *Senior Learning Network Project* was undertaken by *Creative Retirement Manitoba*. To obtain senior-relevant content for the *Seniors Learning Network Internet* site, *Creative Retirement Manitoba* developed multiple informal partnerships with organizations throughout Winnipeg that served the senior population. One such partnership was with the St. Vital Historical Society.

7.2.3 Expanded Delivery Network

Partnerships for OLT projects have contributed to an expanded project delivery network. Partnerships facilitated project delivery through increased access to a broader target audience and more targeted end-users, delivery sites, and increased access to support staff for project delivery (volunteers). Both formal and informal partnerships were considered to have expanded the project delivery network.

Many projects, particularly CLN projects, utilized informal partnerships to enable the project to reach targeted end-users. In these informal partnerships, the partner usually provided limited resources to the project. Instead, the informal partner often introduced their client group to the services or programs offered through the OLT funded project. *Monashee Learning and Training Centre: Monashee Learning Community Partnership* utilized both formal and informal partnerships to enhance the delivery of their services. In particular, an informal partnership was developed with the local Community Schools Association to develop and distribute a program guide that outlined programs currently being offered through both organizations.

Project accessibility to end-users was also increased through partnerships with organizations affiliated with *Community Access Program* (CAP) sites. This was particularly true for the Community Learning Network (CLN) projects, where 44% of the project partners were linked to a CAP site (See Table 7-6). For example, the *Creative Retirement Manitoba: Senior Learning Network* partnered with the Middle Church Home and Community Connections to obtain access to CAP sites.

Table 7-5
Links to CAP sites

	LTI		CLN		LTW	
	Sponsors (N=56)	Partners (N=18)	Sponsors (N=44)	Partners (N=27)	Sponsors (N=14)	Partners (N=13)
Yes	5%	11%	43%	44%	0%	8%
No	95%	89%	57%	56%	100%	92%
Total	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

Partnerships also increased access to support staff (volunteers) for project delivery, and this supported service delivery in OLT funded projects. Many partnering relationships were based on either the project sponsor or the project partner providing trained staff or volunteers to provide service delivery to end-users. For example, the *Vancouver Community Network* (VCN): *Vancouver Community Learning Network* (VLN) partnered with the *Technical Volunteer Web* (TVW). The TVW provided volunteers with expertise in technology who were then able to provide instruction on computer use, including accessing the Internet and using email, to all other organizations involved in the project.

7.3 Partnership Sustainability

The evidence suggests that many partnerships developed for OLT projects would continue in some form after their OLT support end. The case studies and the surveys of project sponsors and partners provided considerable evidence that contributions made by project partners (e.g. additional funding and in-kind resources, content development and expanded delivery networks) were recognized by project sponsors and partners. The surveys of project sponsors and partners also described other advantages of their partnerships:

- Support knowledge/skills sharing (36%);
- Broaden the target audience (21%);
- Increase effectiveness in reaching the target audience (13%); and
- Provide a wider resources base for the project (20%).

Given the recognition of the value of these partnerships, it seems likely that these groups will look for ways to continue partnering in some form after their OLT support ends.

In addition, 89% of the surveyed project sponsors and partners indicated high levels of satisfaction collaborating with project partners in the implementation of the OLT funded project. This high level of satisfaction suggests that these groups will look for ways to continue partnering.

The survey of project sponsors indicated that the majority (82%) anticipate partnerships developed for the project would extend beyond the completion of the project. Looking specifically at LTI funded projects, which generally ended by 1999, 73% of the partnerships were reported to have extended beyond the life of the project.

Key informants were also optimistic that the project partnerships created through OLT were sustainable. It was noted that OLT funded projects had led to numerous "offshoots" or additional projects, and thus partnerships, that are currently in place without OLT funding. It was suggested that although OLT funding may not be available to sustain partnerships, the momentum, ideals and activities resulting from the project generate a commitment that will sustain the partnerships.

Key informants suggested that OLT could further sustain partnerships by providing information to sponsor/partner organizations on how to develop formal partnerships and move them forward toward sustainability, as many do not possess the skills and knowledge do this.

7.4 Barriers to Partnerships

While project sponsors and partners were generally satisfied with the partnerships developed for OLT projects, a number of barriers to such partnerships were identified. The case study evidence and the surveys of project sponsors and partners indicated that project sponsors often lack the required knowledge to develop and mobilize formal

partnerships. Lack of knowledge of partnering impacts both the development and maintenance of the partnership and can lead to conflicts during project development. This is particularly problematic for non-profit organizations and community agencies.

Supporting the findings that lack of partnering experience impacted partnerships, both sponsors and partners commented that disadvantages of partnerships included:

- Projects having increased organizational and logistical challenges;
- A significantly slower project development process that required more effort; and
- Communication breakdowns.

The case study evidence also indicated that conflicting understanding of project goals between partners can significantly impact partnerships and sometimes develop out of poorly formalized partnerships. Partners interviewed for the case studies noted that these conflicts arose, in part, from diverse philosophies and disagreements about organizational domains. Conversely, successful partnerships were based on shared philosophies and project visions.

Partner fatigue was also identified as a barrier by the case studies and by surveyed project sponsors and partners. Over-commitment and non-delivery of resources by partners have impacted the success of partnerships, particularly among non-profit or community organizations. Non-delivery of resources appeared to be linked to lack of monies available to the partner. When asked to describe the main disadvantages of partnerships, sponsors said that a major disadvantage was working with partners who are under-resourced or understaffed.

Delays in receiving funding from OLT (i.e. from the developmental phase to pilot phase as a result of the application process) resulted in waning project momentum and interest among partners. This sometimes led to partner drop out. Both the case study and key informant evidence suggests the need to have a "fast track" procedure for obtaining funding between the developmental and pilot phases, for projects that are already running. The issue of waning partner interest was more salient when community organizations were involved, given the unstable nature of their internal funding and staff resources. In particular, the *Vancouver Community Network* (VCN) and the *Office of Partnerships for Advanced Skills* (OPAS) had difficulty maintaining the partnerships developed at the time of the funding application. In the case of the VCN, new partnerships needed to be established by the time OLT funding was received because the original project partners had either lost their matching funds, closed down or lost resources to pay internal staff to champion the project. OPAS found that the delay had affected project momentum and the applicability of the results from the developmental phase. Also, OPAS had difficulty maintaining partner involvement as partners felt they were losing out on other opportunities while waiting to hear if the application was accepted.

Partner resource levels were identified as another important factor because depleting partner resources can lead partners to re-think or forgo project involvement to focus on their primary mission. Key informants stressed that the primary barrier to developing and maintaining partnerships was funding, particularly partner funding levels.

8. Program End-Users

This section examines the extent to which OLT projects targeted identified equity groups.

OLT projects have had considerable success in reaching designated equity groups, although some groups were not particularly well reached. The case study analysis indicated that groups targeted by funded projects include seniors, persons in rural or remote communities, persons with disabilities and persons with low literacy skills. For example, the Teaching Literacy as a Safety Initiative by the Alberta Forest Products Association (AFPA) had a primary objective of increasing literacy skills of workers using industry-related knowledge and without alienating the target audience. The self-paced CD-ROM utilizes specialized teaching methods and tools to assist low literacy workers who would not otherwise participate in classroom based safety training courses.

The survey of project sponsors also indicated that OLT funded projects had considerable success in terms of targeting identified equity groups. For example, 59 percent of project sponsors noted that their project had targeted persons in remote/rural areas (as shown in Table 8-1).

Table 8-1
Equity Groups Targeted by OLT Funded Projects

	LTI	CLN	LTW	All Projects
Persons in remote/rural areas	54%	66%	54%	59%
Women	43%	51%	23%	44%
Youth	15%	62%	8%	32%
Aboriginal community	13%	34%	8%	21%
Seniors	5%	36%	8%	17%
Visible minorities	12%	28%	–	17%
Persons with disabilities	12%	26%	8%	17%

In addition to the defined equity groups, project sponsors/partners also indicated a variety of other groups which were targeted as part of the OLT funded project(s). These included:

- students;
- unemployed;
- union members;
- professional association members;
- teachers/professors/educators of technology; and
- literacy workers.

It should be noted that while it appears OLT funded projects had good representation in terms of remote/rural participants (59% of sponsors noted that their project had targeted this group) and women (44%), it was suggested that there were some groups that were not particularly well reached:

- **Young mothers**: Although several projects noted that they had made specific efforts to provide services to both youth and women, it was noted that child-care responsibilities often limited the extent to which young mothers could access available programs/services. Some project sponsors/partners noted that programs had to retain sufficient flexibility to facilitate greater participation for young mothers. Examples included location of the project/facility in close proximity to daycare, and/or providing "quiet space" for mothers for nursing and/or other child related activities.

- **ESL populations:** Some project sponsors/partners noted difficulty in attracting ESL populations/clients to OLT projects. Lack of familiarity with technology and language issues were cited as key barriers to participation. ESL populations were also noted as requiring both language and computer training in order to obtain the maximum value from the provided programs.

- **Aboriginal clients:** In the case of the Aboriginal clients, the key missing resources needed to facilitate access to learning technology were said to be education, teacher training and access to financial and technological resources. To overcome these issues, informants suggested a more directed or "targeted" effort by OLT to meet with these groups and create links between the community access programs that serve them and OLT programs.

Non-funded projects also targeted a number of the identified equity groups including:

- Persons in remote areas (55%);
- Youth (44%);
- Aboriginal community (44%); and
- Women (39%).

The evidence indicates that OLT projects have worked to identify and respond to the needs of the end-user groups they target and have been innovative in adapting learning technology to be relevant and meaningful to the users. The case studies noted a variety of ways in which projects have worked to identify and respond to the needs of the end-user groups targeted by the project:

- For the *Vancouver Community Learning Network* (VLN) project, The *Vancouver Community Network* (VCN) adapted Internet portals and computer training to diverse groups of end-users including seniors, cultural workers, and multi-barrier inner city residents. In each instance the content and format of the Internet portals was directed by the partner organization's mandate and need. Additionally, the VLN coordinated workshops and guest speakers to illustrate the applicability and use of learning technologies to the end-users and facilitate participant driven content of the Internet

portals. By making technology relevant to the concerns, interests and needs of the community, VCN decreased the barriers faced by individuals accessing the technology.

Project partners indicated that the project had helped end-users by:

- Decreasing social isolation (e.g. by increasing connections with family and friends);
- Facilitating lifelong learning (e.g. by increasing the confidence and desire to learn); and
- Helping individuals better adapt to the labour market (e.g. by teaching transferable skills and assisting in job search and networking).

The end-user focus group conducted for this project with seniors confirmed that the project had decreased seniors' social isolation by teaching them how to e-mail friends and family, increased social interaction within the Carnegie Community Centre (where a computer room had been developed by the project and staffed by VCN volunteers to allow public drop-in access and allow drop-ins to obtain computer training and one-on-one assistance) and increased their interest in capacity to use learning technology.

- For the Computer-*Based Adult Learning Technologies Project*, the *Fanshawe College* developed a learning model that applied a computer mediated learning (CML) process to adult learners facing various barriers or limited access to learning technologies. The end-user groups included the unemployed/underemployed, single parents, learners with disabilities, low-literacy learners, and individuals located in remote rural areas. A non-credit course was offered over the Internet to adult learners, many of whom were members of equity groups, to develop skills in the Internet, conferencing software and an audio-tactile network (ATN).

  Although an end-user focus group could not be organized for this case study, due to a lack of contact information for the majority of individuals who completed the course, the case study and the project's final evaluation report indicated that project end-users benefited from participation through increased language, decision-making, research and problem-solving skills. Also, the program helped to develop self-esteem and clarify career paths for end-users. One student had successfully acquired certification through the program, while two others went on to become facilitators for other CML programs at one of the community agencies.

The surveyed project sponsors and partners also confirmed that their OLT projects had developed new ways of using learning technology to reach target audiences by:

- Facilitating content development (78%);
- Testing the effectiveness of learning technologies in various settings (83%);
- Developing, testing and/or implementing new learning models (82%); and
- Conducting research on issues related to learning technologies (70%).

The key informants agreed that projects funded through the OLT initiatives of CLN, LTI and LTW have had a positive impact on a diverse group of end users. Within the community, the CLN initiative was said to assist in both identifying and meeting community needs through pilot and developmental project funding. One of the OLT initiative's greatest strength was said to be that it facilitated programs that "brought together people who were experiencing the same challenges", especially rural groups and people in job transition. Further, through OLT funded projects, techniques have been developed and used to bring new technology to marginalized groups who would not normally use learning technology. Key informants commented that access to new technology has helped such adult learners as the under/unemployed, seasonal workers, individuals with low literacy/numeracy skills, low income groups, First Nations groups, seniors, single mothers, and people from rural communities and resource-based communities. Youth have also been reached at the community level by OLT funded initiatives. Examples given by key informants of OLT funded projects that reached targeted audiences included the *Family Literacy Project* and the distance e-learning program in science for Aboriginal students.

9. OLT Program Impact

This section examines the impacts of the OLT program by examining project sustainability and the impact of the program on project sponsors and partners, end-users and the community. Once again it should be noted, however, that it is difficult to determine precisely to what extent the impacts would not have occurred without the OLT because of the lack of program safeguards to limit the risk that projects and leveraged funds were not incremental (as discussed in Section 5.4.2).

9.1 Project Sustainability

The evidence suggests that many OLT-funded projects would continue in some form after OLT support ends, or produced outputs/products that will be used after OLT support ends. An assessment of project sustainability for the ten case study projects indicates that:

- Two projects either have continued or plan to continue;
- Five projects involved one-time developmental activities (e.g. a pilot test, testing a new learning model, designing a technology-enhanced health and safety program) had either just terminated or plan to terminate when the final deliverable is complete, although the resulting products are either in use, or expected to be used after project completion; and
- Three projects were too new to determine whether they will be sustainable.

The surveyed project sponsors were asked to indicate the extent to which their current project would continue once OLT funding expired. As highlighted in Chart 9-1, more than three-quarters (78%) of project sponsors felt that their project would continue in some form after their OLT support ends.

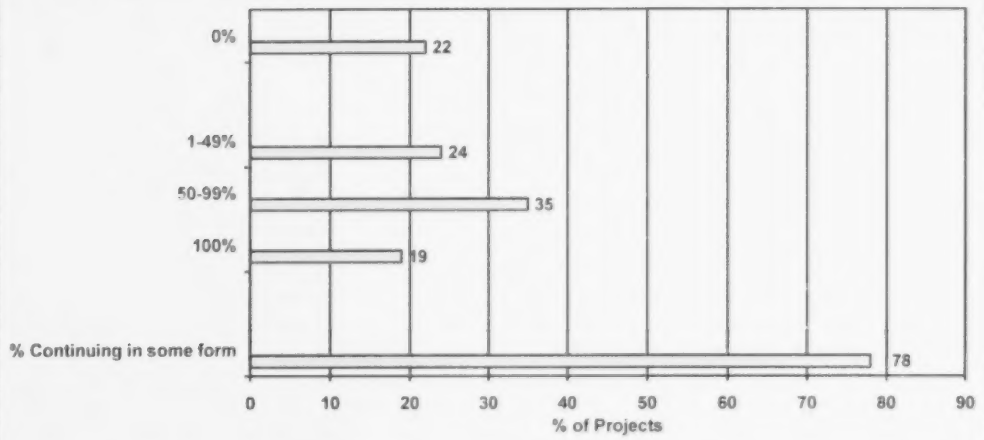
Chart 9-1 also indicates that a significant proportion of the surveyed project sponsors (54%) noted that they expected the proportion of their project that would continue would constitute more than fifty percent of the activity funded by OLT. About a third (35%) indicated that fifty to ninety percent of their project would continue and nineteen percent (19%) indicated that one hundred percent or the entire project was expected to continue.

Many of the key informants felt that it was too early in the life of the projects to know whether they would be sustainable. However, some believed that it was already evident that some projects are sustainable in the long term, while others are not. Key informants also noted numerous "*offshoots*" have led to additional projects that are currently in place without OLT funding.

For many informants the biggest issue surrounding sustainability was funding. Necessary for sustainability is the need for project sponsors to assume some of the project cost currently funded through OLT, or continued involvement by OLT or government, as there are insufficient resources at the local level to sustain projects.

Key informants suggested that the OLT could further sustain projects by funding projects for a longer durations and incorporating the notion of sustainability as a condition of funding, as a way of addressing the notion held by some project sponsors that OLT funds "pilots" and that completing the pilot means that the project is over.

Figure 9-1
Proportion of the Original Project Expected to Continue



9.2 Impact on Project Sponsors and Partners

Most project sponsors indicated that their project would not have gone ahead without OLT funding or would have proceeded on a more limited scale. As noted in Section 6.4, the majority (85%) of project sponsors surveyed noted that they would not have undertaken the same project without OLT funding. For example:

- Some sponsors noted that they would have had fewer partners had they not received OLT funds;
- Some partners indicated that their project would have been of shorter duration had they not received OLT funding; and
- Several project sponsors noted that the scope of their project would have been considerably reduced had they not received OLT funds.

Several project sponsors noted that the provision of OLT funds helped ensure that adequate evaluations were completed during the project to identify lessons learned, as well as to provide direction for required changes in program delivery.

Project sponsors indicated that interaction with the OLT had increased their knowledge of learning technologies. In addition to the impact of the funding, project sponsors were asked to comment on the impact of working with the OLT for their own organization. Project sponsors were positive in terms of the information acquired through their interaction with OLT. For example, interaction with OLT increased sponsors knowledge of:

- New approaches in learning technologies (88%);
- Learning technologies information (80%); and
- Trends in the use of learning technologies (59%).

9.3 Impact on End-Users

There is a need for better outcome tracking at the end-user level. The evaluation of program impacts on end-users was limited because the program never required the collection of end-user client data from the funded projects and end-user/client information was unavailable from OLT administrative databases. The requirement for end-user data collection will be included in the new RMAF. It will be important, however, to test the new tracking methods in a variety of end-user settings to ensure that the new methods can be easily applied without undue impact on project administration or on program reach.

The available evidence indicates that OLT projects had beneficial impacts for end-users. In order to partially compensate for the unavailability of end-user data, focus groups were conducted with three of the four CLN case studies. Each focus group consisted of nine end-users and identified the following positive impacts on end-users:

- *Vancouver Community Network:* Project targeted on individuals with low income and literacy skills. The focus group was conducted with seniors. The major impact on senior end-users was decreased social isolation through learning Internet and e-mail skills, increases direct social interaction at a drop-in computer center developed and staffed through the project, and increased interest and capacity to use learning technologies;
- *Monashee Learning and Training Centre:* Project targets on increasing access to lifelong learning and to increase the presence of on-line businesses. Benefits to end-users were increased confidence in learning and a reduced aversion to using computers. Some project participants are teaching at the center; and
- *Creative Retirement Manitoba:* Project aims to provide seniors with necessary government and community information by on-line access, combined with courses and mentoring programs to improve seniors' computer skills. Benefits to seniors include reduced social isolation, intellectual stimulation and a feeling of independence and accomplishment.

As indicated in Table 9-2, the surveyed project sponsored and partners indicated that OLT funding had achieved the following:

- Helped workers take advantage of technology (82%);
- Facilitated lifelong learning in the community (81%); and
- Helped develop a more skilled workforce (77%).

Table 9-2
Project Sponsor/Partner Perceptions of Project Impacts on End-Users on Selected Issues*

	Valid N	% Disagree/ Strongly Disagree	% Neutral	% Agree/ Strongly Agree
Helped workers take advantage of technology.	150	3%	15%	82%
Facilitated lifelong learning in the community.	145	3%	16%	81%
Helped develop a more skilled workforce.	135	4%	19%	77%
Enabled workers to participate more fully in the community.	122	9%	22%	69%
Addressed regional employment/skill needs.	126	10%	22%	68%
Contributed to the creation of employment opportunities in the community.	118	13%	33%	54%

* Excludes don't know/no opinion responses

Site visits conducted for the case studies also included interviews with the project sponsors and partners, and these interviews cited further examples as to how OLT funded projects benefited end-users. As noted in Section 6.3:

- The Alberta Forest Products Association (AFPA)'s *Teaching Literacy as a Safety Initiative in the Forest Industry* project is developing a CD-ROM to provide health and safety training to forestry workers for low literacy skills in remote locations. When the deliverable is completed, the project sponsors and partners maintain that the overall impacts will include new safety, literacy and computer skills for these employees.
- The Office of Partnerships for Advanced Skills (OPAS) Worker Online Re-skilling Centre (WORC) is providing *Technology Mediated Learning* (TML) to working adults (especially mid-career, older persons) in need of skills upgrading. The sponsor and partners felt that the use of TML in the culture/art sector (their first targeted sector) will be effective as a low-cost alternative to on-site training, reach rural and remote groups, and provide opportunities for end-users to develop broader networks.

9.4 Impact on the Community

The available evidence indicates that OLT projects have beneficial impacts on the community. The surveyed project sponsors and partners also cited community-level benefits associated with OLT funded projects. Project sponsors and partners agreed that funded projects have:

- Broadened access to learning opportunities (95%);
- Supported community capacity building (82%);
- Raised awareness of learning opportunities (78%);
- Facilitated the development of community expertise in learning technologies (74%); and
- Helped develop the communities' technological infrastructure (66%).

The OLT program contributed to improved accessibility to learning technologies. Almost half (44%) of all CLN project were directly linked, through the project partner or sponsor, to a CAP site. Additionally, by funding CLN projects facilitated by community colleges or institutes (22%) and not-for-profit organizations (38%) that serve the community, OLT has further increased accessibility to learning technologies. With respect to the many objectives of CLN funded projects, most were aimed at increasing learning skills (23%), reducing barriers (23%) or increasing accessibility to technologies (27%).

The case study evidence provides some specific examples of OLT funded projects that increased accessibility to learning technologies by providing learning opportunities through the use of various technologies.

- *Accessible Adult Learning in the Health Professions Program (Dalhousie University):* Through the Faculty of Health Professions, the project provided distance education courses to students at the undergraduate and graduate level using teleconferencing, email, and Internet or web-based learning.
- *Computer-Based Adult Learning Technologies (Fanshawe College):* The project utilized a learning assessment and recognition (PLAR) strategy and various technologies (e.g. Internet, conferencing software and audio-tactile network) to assist equity groups to learn new technical skills. End-user groups included:
  - unemployed and underemployed individuals;
  - women and single parents;
  - learners with disabilities;
  - individuals with low levels of literacy and English proficiency; and
  - individuals in remote or rural areas.

10. Conclusions and Areas for Improvement

This section presents a summary of the main findings of the evaluation and the areas identified for improvement.

10.1 Summary of Main Findings

There continues to be a need for a national program that encourages the use of learning technologies to develop new technical skills and upgrade old skills – particularly in smaller, isolated communities. Currently, the OLT appears to be almost unique in Canada in funding projects that link learning technologies with non-institutional learning, such as community or lifelong learning, while maintaining an overall program focus on skills development and training for innovation.

Stakeholders also see a need for OLT funding and believe that program objectives are still valid. In the future, the federal government and the OLT are seen to have an important role in:

- Facilitating infrastructure development and access;
- Developing and facilitating partnerships; and
- Providing financial assistance and funding.

A wide variety of organizations applied for and received OLT funding. The types of organizations submitting applications and receiving funding from the OLT include educational institutions (39%), professional groups (28%), non-profit organizations (24%), public institutions (7%) and Native groups (2%).

The OLT helped develop partnerships with private sector, community and non-government organizations. The case study and survey analyses indicate that OLT funding supported partnership development, for example by making it possible for the project to be developed or to be developed with a broader scope and impact. At least one new partnership was developed by 77% of the surveyed project sponsors as a result of participating in the OLT program, and most sponsors developed more than one partnership. The range of project partners included community-based organizations (75%) and the private sector (33%).

Project sponsors attributed the OLT's success in developing partnerships to the emphasis the program places on the partnership approach and the ability of the program to provide focus and direction to community organizations looking to utilize learning technologies.

Project partners made a variety of contributions to OLT projects, including additional funding, in-kind-resources, content development, and expanded delivery networks. The case study analysis suggests that each dollar of OLT funding leveraged an average of $1.50 from project sponsors/partners.

OLT funded projects have contributed to increased access to and use of learning technologies among a wide variety of designated equity groups. The OLT has funded projects to promote learning technologies through the development, testing and use of a wide range of technologies (including computer-based training, the Internet, the development/use/testing of a website, and the development of specialized software or CD-ROM). For example, the many objectives of CLN funded projects included reducing barriers (23%), increasing learning skills (23%) and increasing accessibility to technologies (27%).

The evidence indicates that OLT projects had considerable success in reaching designated equity groups (e.g. persons in remote/rural areas, women, youth, persons with low literacy skills, seniors, and persons with disabilities). The evidence also indicates that OLT projects have worked to identify and respond to the needs of end-user groups identified by the project.

The available evidence on end-user impacts indicates that OLT projects benefited end-users. End-user focus groups for three of the four CLN project case studies identified a number of impacts, including increased confidence in learning and using computers, and reduced social isolation. The survey of project sponsors indicated that OLT projects have increased access to learning technologies and have helped workers take advantage of technology (82%), facilitated lifelong learning in the community (81%), and helped develop a more skilled workforce (77%).

OLT funding appears to be an important factor in the development of projects aimed at using technology to promote learning. Only 6 % of the non-funded projects proceeded in full without OLT funding, and another 28% proceeded in a reduced form. The rest (66%) did not proceed. The major reasons given by non-funded applicants for projects not proceeding after not being accepted by the OLT was the lack of alternative sources of funding.

The evidence suggests that the partnerships and projects developed through the OLT would continue in some form after their OLT funding support ends. There is considerable evidence that contributions made by project partners (e.g. additional funding, in-kind resources, content development, expanded delivery networks) were recognized by project sponsors and partners. Also, project sponsors and partners indicated high levels of satisfaction with their experiences collaborating for the OLT funded project. The value and satisfaction associated with their partnering experience under the OLT suggests that these groups will look for ways to continue partnering in some form after their OLT funding support ends.

In support of this conclusion, the survey of project sponsors indicated that the majority (82%) anticipated that partnerships developed for the OLT project would extend beyond the completion of the project. The experience with LTI funded projects, which generally

ended in 1999, also corroborates this conclusion (with 73% of the partnerships reported to have extended beyond the life of the project).

The evidence also suggests that many OLT projects would continue in some form or produced outputs/products that will be used after OLT support ends. For example, evidence from the ten case studies indicates that two projects either continued or planned to continue, five projects involved one-time development activities to produce outputs/products that are either in use or expected to be used after project completion, and the remaining three projects are too new to determine whether they will be sustainable. Similarly, more than three-quarters (78%) of the surveyed project sponsors felt that their project would continue in some form after the end of OLT funding.

10.2 Areas Identified for Improvement

The broad over-reaching objective of the OLT needs to be recast in more realistic terms. The OLT was established with an annual budget of $6 million. The current objective of the OLT is broad and over-reaching in aiming to reduce the economic and social divide between those who have computer skills and those who do not. The current over-reaching objective needs to be recast to be something that a program with a limited budget can realistically achieve. An example might be to make the objective to improve computer skill sets of end-users and reduce their reluctance/inability to use newer technologies.

Program controls need to be put in place to minimize the risk that funds leveraged by OLT projects are not incremental, and to safeguard against overlap and duplication. Although there is evidence that OLT projects are leveraging additional funds, the current program design does not include safeguards to reduce the risk that leveraged funds are not incremental (i.e., would have been used for similar activities in the absence of the program).

There is a need for the program to be able to demonstrate that it has safeguards in place to prevent, or at least minimize, the risks that leveraged funds are not incremental and that OLT projects would have proceeded in the absence of the program. One method of accomplishing this could be to require the project sponsor to attest that the project is incremental (i.e. would not have gone ahead without OLT funding).

Similarly, given that some of the unaccepted projects gained funding from other sources, there is a need for the program to be able to demonstrate that it has safeguards in place to prevent, or at least limit, any overlap or duplication of activities funded by other sources (e.g. by coordinating activities with NGOs, other levels of government, etc.).

While OLT has been able to reach designated equity groups, certain groups may require additional program effort to be adequately reached. While OLT funded programs have been relatively successful in reaching persons in remote/rural areas, women and seniors, there has been less success in reaching the Aboriginal community, young mothers and ESL populations. Aboriginal groups, especially, may require a targeted initiative to address the multiple issues identified in serving this population.

There is a need for better outcome tracking at the end-user level. There is a need to provide for the tracking of end-users, for example by requiring project participants to register with project staff. The requirement for end-user data collection will be included in the new RMAF. It will be important, however, to test new tracking methods in a variety of end-use settings to ensure that the new methods can be easily applied without undue impact on project administration by sponsors or on program reach.

Project sponsors and partners lack experience partnering. Partnership activities required considerable resources and were particularly challenging for organizations that were inexperienced in partnering or that lacked the required knowledge to develop and mobilize formal partnerships (i.e. non-profit and community organizations). Lack of knowledge and partnering experience impacts both the development and maintenance of partnerships and can lead to conflicts during project development. In general, organizations would like more direction and assistance from the OLT in terms of the development and maintenance of partnerships.

OLT staffing levels and staff turnover have impacted the program. There is a perception that there is insufficient OLT staff to manage current projects. Further, high staff turnover within the OLT has created an impression that staff are not sufficiently familiar with the program or with learning technologies. Generally, project sponsors would like more interaction and direction from OLT staff.

There is a strong perception that OLT should allocate more resources to understanding and disseminating best practices and lessons learned. It is felt that OLT can act as a data warehouse for learning technology information, research and findings from projects. Stakeholders also requested additional opportunities for project sponsor interaction and information sharing between and within project initiatives.

Delays in receiving OLT funding (i.e., from the developmental phase to pilot phase as a result of the application process) resulted in waning project momentum and interest among partners, sometimes resulting in partner drop out. Informants and sponsors suggested that there be a "fast track" procedure for obtaining funding between the developmental and pilot phases, for projects that are already running. The issue of waning partner interest was more salient when community organizations were involved, given the unstable nature of their internal funding and staff resources.

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Appendix A
Evaluation Matrix

Evaluation Questions	Indicators	Methodologies
1. Are the objectives and mandate of the OLT still relevant given the current situation? Is it realistic to aim at closing the Digital Divide? What should be the role of the federal government in the future?	• Opinion of experts in the learning technology field • Analysis of needs of target audience • Assessment of learning technologies status, gaps and trends • Availability of technical infrastructure (computers, networks, internet connection, technical support systems, CAP sites)	• Document Review • Interviews • Survey of sponsors • Survey of unfunded projects • Survey of partners and community leaders • Panel of Experts
2. How and to what extent does OLT contribute to the development and use of learning technologies in Canada? Does the program improve the ability of Canadians to adapt to the needs of the labour market?	• Observations of sponsors and partners • Observations of end-users • Distribution of LTI and CLN funded projects - funding levels - settings (home workplace, community learning centres) - end-users - regional differences • Summary of policy forms held • Opinion of experts in the learning technology field • Regional perspective - Socio-economic well-being - Employment Shortages and needs - Skills requirements - Resources, capacities and infrastructure • Learning technologies developed and used without OLT funding - settings (home workplace, community learning centres) - end-users - regional perspective	• Document Review and Administrative Data Analysis • Interviews • Survey of sponsors • Case studies (with focus groups) • Survey of unfunded projects • Survey of partners and community
3. To what extent has the OLT succeeded in the development of partnerships with private sectors, communities, non-governmental organizations (NGO) and governments? Have the partners been contributing to expand delivery networks and content development? What are the principal determinants of success and barriers to partnership?	• Observations of sponsors and partners • Role of volunteers/staff and other community resources • Number of partners involved and roles • Resources contribution to project • Advantages and disadvantages of partnership • Broadened networks • Number of new networks • Community-based organization involvement • Evidence of synergy between OLT projects in the community of elsewhere	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case Studies • Survey of unfunded projects • Survey of partners

Evaluation Questions	Indicators	Methodologies
4. Who and where are the adult learners reached by OLT projects? Are they part of Equity Groups? Have their needs been met? What type of activities/services/tools/ practices have been provided to meet their needs?	• Observations of sponsors and partners • Distribution of LTI and CLN funded projects - funding levels - settings (home workplace, community learning centres) - end-users - regional differences - involvement of end-users	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case studies (with focus group) • Survey of partners and community leaders
5. Have the funded projects demonstrated the applicability and effectiveness of innovative use of learning technologies and learning models? Specifically: - In various settings such as the workplace, the community learning centres and homes. - For individuals with special learning needs or individuals facing barriers to their learning (low-income, single parents, unemployed, part-time and school dropouts). To what extent have OLT projects been replicated elsewhere as models?	• Observations of sponsors and partners • Distribution of LTI and CLN funded projects - funding levels - settings (home workplace, community learning centres) - end-users - regional differences • Increase knowledge of LT opportunities • Partner assessments of effectiveness	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case studies (with focus group) • Survey of unfunded projects • Survey of partners and community leaders • Panel of Experts
6. Are the projects and partnerships created through the OLT sustainable? Would the organization have been able to make the progress that they have in introducing technology to develop skills if they had not had access to OLT funding?	• Observations of sponsors and partners • Relative importance of OLT funding - New resources committed • Technical expertise developed • Project supported through a CAP site (CLN) • Projects beyond the expiry of OLT funding - Duration - Proportion of operations that continue - Level of co-operation between partners - Frequency of meetings	• Administrative Data Analysis • Interviews • Survey of funded projects • Case studies • Survey of unfunded projects • Survey of partners
7. What did OLT do to promote learning technologies? Did it increase the sharing of knowledge and awareness about effective use of learning technologies and new approaches?	• Observations of sponsors and partners • Distribution of OLT awareness funded projects - Funding levels - Settings (workshops, seminars, forums, promotion products, web-bases, LT tools) - Target audience - Regional differences	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case studies • Survey of unfunded projects • Survey of partners and community leaders

Evaluation Questions	Indicators	Methodologies
8. To what extent did OLT contribute to an improvement of accessibility of learning technologies? By end-user groups, equity groups and regions? Is there new and enhanced capacity of partners and networks to serve clients using LTs?	• Observations of sponsors and partners • Distribution of LTI and CLN funded projects - funding levels - settings (home workplace, community learning centres) - end-users - regional differences • Comparative analysis of CAP sites and community colleges who received and did not receive OLT funding	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case studies • Survey of unfunded projects • Survey of partners and community leaders
9. What are the costs associated with each type of OLT funded projects and how does it compare with non-OLT projects? Is the OLT management model cost-effective?	• Observations of sponsors and partners • Opinion of experts in the learning technology field • Comparative analysis of CAP sites and community colleges who received and did not receive OLT funding	• Document Review and Administrative Data Analysis • Interviews • Survey of funded projects • Case studies • Survey of unfunded projects • Survey of partners and community leaders

Appendix B
Summary of Case Studies

This appendix provides an overview of the key issues/findings drawn form the ten OLT projects sites visited as part of the evaluation. It should be noted that due to differences in the sites (i.e. some sites have been operational for 1-2 years, while other sites had been operational for only a few months, or the project had ended) it was not possible to identify outcomes/barriers for all projects.

The following issues are presented:

- Project overview;
- Target population/client group;
- Client needs (objectives of the project);
- Extent to which client needs/project objectives were met;
- Identification of barriers/factors that affect achievement of the objectives; and,
- Other issues.

Table B-1
Case Study Summary: Learning Technology (LTI) Projects

Project/Issue	*Dalhousie University* – Accessible Adult Learning in the Health Profession's: Interactive Use of Technologies	*Fanshawe College* – Computer-Based Adult Learning Technologies	*Royal Roads University* – Community Service Learning
Project Overview	➢ distance learning for health professional from four schools/one program ➢ invested in technology systems to support distance education ➢ to identify strengths and weakness of e-learning for health professionals	➢ to pilot test and review the effectiveness of computer mediated learning (CML) for groups that typically encounter barriers or have limited access to learning technologies ➢ to develop capacity/expertise in the community to deliver computer-based training to disadvantaged populations ("train the trainers")	➢ distance learning for individuals in the community service (i.e. Non-profit sector) to earn a graduate (Masters level) degree ➢ targetted both the student and the not-for-profit organization ➢ involved a significant degree of mentoring (student and agencies) ➢ to allow students/mentors from across Canada to share knowledge and experiences
Target Population/Client Groups	➢ health professionals located outside of Halifax ➢ 38% of students were in rural locations	➢ unemployed/under employed ➢ women/single parents ➢ learners with disabilities ➢ individuals with low literacy levels ➢ individuals in rural areas that lacked computer/technology infrastructure	➢ individuals working for/with not-for-profit organizations ➢ community-based learning (distance education program)
Client Needs/Project Objectives	➢ to reduce the need for health professionals to move to either upgrade/enhance skills ➢ to allow individuals in rural/remote regions access to the program ➢ to enable clients in centers outside of Halifax to participate in the program	➢ to provide groups that typically do not have access to computers/learning technologies with computer assisted training/upgrading ➢ to reduce barriers and/or increase the comfort levels with the use of computer-based learning technologies ➢ to allow individuals to upgrade/acquire skills at a pace/time convenient to them (flexible training model)	➢ this project was developed to test the efficacy of distance learning for individuals in the not-for-profit sector. ➢ Project was designed and delivered in 1996 – was considered to be a pilot project for the use of distance learning models for Royal Roads University
Degree to Which Project Objectives Were Met	➢ only limited end-user information was available, but evaluation reports indicate a high level of student/staff support for the project ➢ enrollment data indicates that a high proportion (38%) of students were in rural/remote locations	➢ the evaluation that was completed for the project noted that the program was generally successful in terms of attracting end users to the centres and providing "marginalized" groups with an alternative avenue to acquire additional skills/upgrading	➢ as a new pilot project at a new University (Royal Roads had only recently become a public university in 1996) the project was characterized by numerous "teething" problems including lack of structure and limited ability for students to interact with faculty.

Table B-1
Case Study Summary: Learning Technology (LTI) Projects

Project/Issue	*Dalhousie University* – Accessible Adult Learning in the Health Profession's: Interactive Use of Technologies	*Fanshawe College* – Computer-Based Adult Learning Technologies	*Royal Roads University* – Community Service Learning
	➢ there were some difficulties in terms of student/staff comfort with technologies	➢ the partnering associated with the project resulted in considerable synergies with other community-based learning organizations (the scope of the project was seen to be very wide) ➢ there was anecdotal evidence of student success including those students who went on to further education/those who decided on a career path and those that found work as a result of their training	➢ information obtained during the case study suggested that while the project was positively viewed by some students, other students were disappointed with the program. Some of the shortcomings of the program could be attributed to the limited technology in place in 1996 (high speed internet connections were not common – contributing to slow access times to web-based information) as well as the lack of experience in delivering on-line instruction by the faculty. ➢ it was noted that the program contributed to information-sharing among students in the not-for-profit sector and generated "partnerships" among mentors and students
Barriers/Factors Affecting Achievement of Objectives	➢ lack of faculty/student comfort with the technology ➢ student/faculty ratio's were originally too high (1 to 25-30 but should have been 1 to 18-20) ➢ health professionals still require some "hand's on" instructions, needed for faster turnaround on some issues	➢ technology was not available/developed/appropriate for those with a disability (deaf/blind) ➢ individuals with low levels of computer proficiency required considerable "hands-on" support (technology could not be provided without considerable support especially for first time users) ➢ the project sponsor noted that the partnerships required considerable time/effort to establish and maintain	➢ technology was not highly developed ➢ faculty was new to using distance learning approaches ➢ program lacked processes to allow for more "one on one" time between faculty and students

Table B-1
Case Study Summary: Learning Technology (LTI) Projects

Project/Issue	*Dalhousie University* – Accessible Adult Learning in the Health Profession's: Interactive Use of Technologies	*Fanshawe College* – Computer-Based Adult Learning Technologies	*Royal Roads University* – Community Service Learning
Other Issues	➢ OLT funded project demonstrated the ability for programs to co-operate in the e-learning field ➢ project was noted to serve as a catalyst for other distance education projects in the university ➢ project continued without OLT funding, but in a weaker form, and partners are looking for other sources of funding	➢ overall, it was felt that the program developed self-esteem and career goals for the end users ➢ it was noted that the technology should not be viewed as a replacement for traditional learning, but rather, as a way to complement traditional learning models (some face to face instruction/assistance would still be required for the end users that the project targetted (i.e. Unemployed, single parents, individuals with low literacy levels etc.). The technology did, however, allow learners to progress at their own pace and not force learners to follow rigid learning schedules/structures	➢ students felt that learning through this "non-conventional" approach (in 1996) was valuable in itself (students had to learn self-discipline, team problem-solving in a distance environment). Relationships developed during the program translated into support networks after program completion ➢ program was viewed as an important learning project for the institution, changes were incorporated into subsequent e-learning/distance education programs that reflected the lessons learned through the Community Service Learning project ➢ outcomes of the project included replication of the new distance learning model in other continuing education initiatives of the university – and use of the model by other interested universities and learning institutions

Table B-2
Case Study Summary: Learning Technology in the Workplace (LTW) Projects

Project/Issue	*Alberta Forest Products Association* – Teaching Workplace Literacy as a Safety Initiative in the Forestry Industry	*Office of Partnerships for Advanced Skills (OPAS)* – Worker Online Reskilling Center (WORC)	*Conference Board of Canada* – Learning Technologies in the Workplace
Project Overview	➢ design a CD ROM to teach a health and safety program to Alberta forestry workers, while at the same time addressing functional and computer literacy issues among the targeted end-users ➢ the project developed partnerships with colleges (for their experience in adult learning/literacy issues), a private communications company (to develop the CD), and key industry representatives (provided technical and content knowledge)	➢ use of Technology Mediated Learning (TML) with employees in a variety of industry sectors (focusing on the cultural arts sector), focusing on mid-career and older employees ➢ development of course content by industry sector to allow employees to learn while continuing to work full-time	➢ to identify technologies, operational processes and strategies that would increase and improve learning in the workplace ➢ to identify management processes/actions that would promote the investment in workplace-based training/learning ➢ project was in the development stage at the time of the case study ➢ this was a research project that was designed to identify the barriers to workplace training and develop solutions/consensus as to what changes could be made to enhance the incidence of workplace-based training
Target Population/Client Groups	➢ employers and employees of the forest industry in Alberta ➢ employer companies range from large multi-national companies to small independent business	➢ employees (to date course content only developed for one industry sector visual arts)	➢ as part of the research project, the primary target populations were employers, although it was noted that through the research it would be hoped that strategies would emerge that would include government, unions, workers and employers
Client Needs/Project Objectives	➢ workplaces include remote, mobile work camps with limited access to formal classroom training – project objects: increase access to safety training ➢ employee groups include workers with poor literacy skills/English as a second language, among which accident rates tend to be higher – project objectives reduce accident rates and increase literacy skills	➢ project objectives include developing increased familiarity of TML among working adults, increase working adults accessibility to skill-upgrading, creation of knowledgeable trainers (in a work place) to demonstrate the advantages of TML in the workplace, translate content of "face-to-face" training to on-line	➢ to identify the benefits of in-house learning programs to Canadian employers ➢ to identify the strengths and weaknesses of learning technology in the workplace (availability, best practices, constraints etc.) ➢ to identify how learning technologies could be best used in the workplace – to determine which training programs can be best used in the workplace to help employees learn and contribute to higher worker productivity.

Table B-2
Case Study Summary: Learning Technology in the Workplace (LTW) Projects

Project/Issue	*Alberta Forest Products Association* – Teaching Workplace Literacy as a Safety Initiative in the Forestry Industry	*Office of Partnerships for Advanced Skills (OPAS)* – Worker Online Reskilling Center (WORC)	*Conference Board of Canada* – Learning Technologies in the Workplace
Degree to Which Project Objectives Were Met	➢ CD-ROM was still being developed, not yet tested with end-users	➢ relatively new and not yet completed (training course content developed for only one sector – visual arts)	➢ unknown at the present time as project has just started
Barriers/Factors Affecting Achievement of Objectives	➢ project partners located in diverse locations through out Alberta, had increased project start-up time ➢ computer literacy and general literacy levels a barrier to CD-ROM use in the field among end-users ➢ small companies may have limited technical infrastructure for on-line program delivery (CD-ROM designed to address issues as it only required single work-site computer)	➢ access to technology and the local technological infrastructure was noted to be a barrier in utilizing TML to train employees, particularly in sectors in which employees work as contractors or have limited funds ➢ the degree to which learning technology is incorporated in the existing workplace culture ➢ attitudinal barriers of members of the cultural sector to technology and the use of technology ➢ the need to develop "user-driven" content in training programs, which matches the learning styles of the targeted end-users	➢ unknown at the present time as project has just started
Other Issues	➢ project is expected to terminated when the final deliverable is completed, but use of CD-ROM is expected to produce immediate and long-term (e.g. safer and healthier workforce, new literacy, computer and safety skills for employees, and increased confidence with technology)	➢ lack of experience in development and sustaining formal partnerships a barrier ➢ partnerships negatively affected by partner fatigue and delays in receipt of project approval/funding ➢ project momentum negatively affected by delay between the developmental and pilot phases	➢ project would not have occurred without OLT because benefits from research are not immediate and , therefore, partnerships were limited and difficult to create ➢ project expected to provide more sophisticated research models for e-learning and employee productivity

Table B-3
Case Study Summary: Community Learning Networks (CLN) Projects

Project/Issue	*Vancouver Community Network (VCN)* – Vancouver Community Learning Network	*Monashee Learning and Training Centre* – Monashee Learning Community Partnership	*L'@venue Inc.* – The Community Portal (arrondissement.com)	*Creative Retirement Manitoba* – Senior Learning Network
Project Overview	➢ provision of Internet tools/access and training at community sites (as of Nov. 1, seven Internet access sites had been established for members, clients and the public) ➢ internet tools provided include interactive service directories, neighbourhood learning exchanges and portals ➢ project partnered with CAP were possible ➢ volunteers for training provided through the Technical Volunteer Web (TVW)	➢ establish a hub/centre of services centered around existing organizations in community ➢ services offered are to facilitate life-long learning through technology based learning programs tailored to the needs to the community (high unemployment rates, poor economic diversification, rural) and encourage individuals to remain in the community	➢ provide accessible computer information technology and training to an area of Montreal with economically disadvantaged residents ➢ develop a community portal with access to community services (mix of content and services) ➢ allow participating community groups (approx. 100) and government bodies to develop and edit their organizations message/content on the Portal ➢ disseminate local news and issues to the community, provide discussion groups and calendar of community events	➢ provide seniors with government and community information on-line through Community Connections resource networks and access sites ➢ provide on-site personal assistance to seniors in technology through courses and mentoring programs ➢ partnering with community organizations for learning network content
Target Population/Client Groups	➢ community residents, including seniors; multi-barrier individuals (low income & low literacy), minority groups, artists	➢ all community members of Lumby and surrounding rural/urban areas	➢ community residents of Mercier/Hochelaga-Maisonneuve (including, low-income, disadvantaged youth, women and seniors)	➢ seniors and their families in Manitoba

Table B-3
Case Study Summary: Community Learning Networks (CLN) Projects

Project/Issue	*Vancouver Community Network (VCN)* – Vancouver Community Learning Network	*Monashee Learning and Training Centre* – Monashee Learning Community Partnership	*L'@venue Inc.* – The Community Portal (arrondissement.com)	*Creative Retirement Manitoba* – Senior Learning Network
Client Needs/Project Objectives	➢ client needs dependent upon community and client group (i.e. senior- need to reduced social isolation; multi-barrier individuals –need for increased literacy skills, reduced fear of technology, better understand of technologies applicability to their lives; artists – need to understand the use of technology in business development) ➢ overall project objectives are to increase access, understanding and use of learning technologies among disadvantaged groups	➢ limited access to learning opportunities given remoteness of community – project objective: increase access ➢ poorly diversified (forestry industry) local economy results in reduced economic opportunity – project objective: provide new learning opportunities in additional fields of employment ➢ project objective to reduce poor connectivity, address fear and mistrust of technology and increase of understanding of the application and usefulness of learning technology in community	➢ economically disadvantaged community, citizens can not afford to access technology – project objective increase access ➢ community members have limited knowledge/access to information affecting them directly (i.e. health information, tenants' rights, community events) – portal developed to increase access to information	➢ client group has poor technological skills, fear of technology, few resources to access technology, can be socially isolated and have limited access to important information that impacts their quality of life ➢ objectives of the program are to collect and organize e-information in a senior friendly useable format, develop training tools for seniors, provided on-site instruction and technology courses for seniors

Table B-3
Case Study Summary: Community Learning Networks (CLN) Projects

Project/Issue	*Vancouver Community Network (VCN)* – Vancouver Community Learning Network	*Monashee Learning and Training Centre* – Monashee Learning Community Partnership	*L'@venue Inc.* – The Community Portal (arrondissement.com)	*Creative Retirement Manitoba* – Senior Learning Network
Degree to Which Project Objectives Were Met	➢ project partnered with community groups to identify and tailor technology delivery to specific needs of client groups ➢ partnering allowed access to multi-barrier/marginalized groups ➢ focus groups with senior end-users indicated program helped decrease social isolation (by teaching them how to e-mail family and friends), increased direct social interaction at Internet-access sites, and increased interest in and capacity to use learning technology	➢ project partners/ participants indicated program addressed travel barriers to continuing education ➢ provided end-users training opportunities in new fields of work and updated technological skills ➢ end-users indicated program increased confidence in learning, reduced fear of technology and increased individual connectivity (through center technical infrastructure)	➢ portal not yet launched, impossible to determine whether objectives met with end-users ➢ project has developed numerous partnerships (approx. 100 community and 10 government) that will provide content for the portal	➢ learning network currently being developed, some community organizations developed ability to post modify information ➢ project partnered with seniors groups were instruction and technology courses tailored to seniors were being provided ➢ seniors in end-user focus group indicated courses had improved their technological skills, increased their confidence and ability to access information on the net and the learning network
Barriers/Factors Affecting Achievement of Objectives	➢ partner resource levels (lack of resources for infrastructure; staff) ➢ client fear/mistrust of technology ➢ inability to access specific isolated target groups (women, First Nations) ➢ lack of resources to address physical handicaps, provide access to one-to-one training, training in literacy/numeracy	➢ center's lack of experience in development and sustaining formal partnerships a barrier	➢ low level of community access to high speed internet	➢ seniors learning needs not addressed by current provincial government, limits funding available to seniors community organizations ➢ income level a barrier to seniors access technology (i.e. computers/Internet) ➢ fear of technology and lack of understanding of use/relevancy barrier to senior use of technology

Table B-3
Case Study Summary: Community Learning Networks (CLN) Projects

Project/Issue	*Vancouver Community Network (VCN)* – Vancouver Community Learning Network	*Monashee Learning and Training Centre* – Monashee Learning Community Partnership	*L'@venue Inc.* – The Community Portal (arrondissement.com)	*Creative Retirement Manitoba* – Senior Learning Network
Other Issues	➢ lack of experience in development and sustaining formal partnerships among community organizations a barrier ➢ lack of tracking of end-users ➢ partnerships negatively affected by delays in receipt of project approval/funding (between developmental and pilot phases)	➢ lack of end-users tracking ➢ program start-up time longer than expected ➢ sponsors did not feel that project was ready to become sustainable, but it might be sustainable by end of OLT funding	➢ too early to assess impacts on end-users	➢ CAP site often take on the specific direction of host organization and therefore do not fulfill larger community need and difficult to use in current project ➢ staff looking for ways to sustain project